



ILMATIETEEN LAITOS  
METEOROLOGISKA INSTITUTET  
FINNISH METEOROLOGICAL INSTITUTE

RAPORTTEJA  
RAPPORTER  
REPORTS  
2007:6

Nurmijärvi geophysical observatory  
magnetic results 2006

EDITORS K. PAJUNPÄÄ AND H. NEVANLINNA

**NURMIJÄRVI GEOPHYSICAL  
OBSERVATORY**


**MAGNETIC RESULTS 2006**

**Editors K. Pajunpää and H. Nevanlinna**

**ILMATIETEEN LAITOS  
FINNISH METEOROLOGICAL INSTITUTE  
HELSINKI 2007**

ISBN 978-951-697-638-2  
ISSN 0782-6079

Yliopistopaino  
Helsinki 2007

<p>Published by</p>  <p>FINNISH METEOROLOGICAL INSTITUTE</p> <p>P.O. Box 503 FIN-00101 Helsinki, Finland</p>	<p>Name and number of publication</p> <p>Raportteja-Rapporter-Reports 2007:6</p>	
<p>Authors</p> <p>K. Pajunpää and H. Nevanlinna (Eds.)</p>	<p>Date</p> <p>November 23, 2007</p>	
	<p>Name of project</p> <p>Commissioned by</p>	
<p>Title</p> <p>Nurmijärvi geophysical observatory - Magnetic results 2006</p>		
<p>Abstract</p> <p>The magnetic yearbook of the magnetic recordings at the Nurmijärvi observatory contains tables, figures of hourly, monthly, and yearly means of the magnetic field components X, Y and Z as well as magnetic activity indices (K, Ak) in 2006. Magnetic isolines describing the distribution of geomagnetic field components in Finland 2007.0 are shown by a series of maps.</p>		
<p>Publishing unit</p> <p>Space Research Unit</p>		
<p>Classification (UDC)</p> <p>550.389.5 (480.1)</p>	<p>Key words</p> <p>Geomagnetic observatory results, Nurmijärvi, Yearbook</p>	
<p>ISSN and key name</p> <p>0782-6079 Raportteja Rapporter Reports</p>		
<p>Language</p> <p>English</p>	<p>ISBN</p> <p>978-951-697-638-2</p>	
<p>Sold by</p> <p>Finnish Meteorological Institute Library P.O. Box 503 FI-00101 Helsinki Finland</p>	<p>Pages</p> <p>49</p>	<p>Price</p> <p>10 EUR</p>
	<p>Note</p>	

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# 1 Introduction

This report presents magnetic measurements carried out at the Nurmijärvi (NUR) Geophysical Observatory between January 1 and December 31, 2006. The observatory is operated by the Finnish Meteorological Institute (FMI) and is part of the Space Research Division of the institute. Information about the IMAGE magnetometer network is included in this report, as it is partly operated by the observatory. The Nurmijärvi Geophysical Observatory started recording the Earth's magnetic field in April 1952. The first yearbook was for 1953.

## 2 Description of the observatory

The observatory is located some 40 km NNW from Helsinki in the northern part of the Nurmijärvi municipality having about 36,000 inhabitants. The observatory lies on a moraine ridge by the lake Sääksjärvi. The 7 ha forest area of the observatory is limited to the lake in the North and North-East, to a nature reserve forest in the South and to a private forest in the West. There are no artificial disturbance sources nearby.

The coordinates of the observatory are:

	Lat.	Lon.
Geographical	60°30.5'N	24°39.3'E
Geomagnetic	57°43.8'	113°28.8'
Corr.geomagnetic	56°49.2'	102°31.2'

The magnetic coordinates are referred to the IGRF-95 model:

L-value	3.3
Height	105m

The Nurmijärvi observatory is running two digital magnetometers, which are controlled usually once per week with absolute measurements. Another magnetic recording system at the observatory is the three-component pulsation magnetometer of the Sodankylä Geophysical Observatory (Fig. 1). The Air quality department of FMI makes continuous airborne radioactivity recording. An automatic weather station observes the following: temperature, humidity, snow depth, current weather and clouds. The Vaisala Company installed at the observatory an automatic station as part of the Helsinki Testbed project. An automatic rain gauge is part to the system. Precipitation and snow depth are measured also manually. Helsinki University operates the seismic station at the observatory. Nurmijärvi municipality needs the water level data of the lake Sääksjärvi. University of Leicester installed a radio transmitter at the observatory in December 2006 for ionospheric research. The transmitter operates at several frequencies in the range 4 - 14 MHz. The receiver is in United Kingdom.

## 3 Recording instruments

In the variation house the Danish suspended flux gate magnetometer (FGE-89) is the primary instrument (Figs. 2, 3). The Ukrainian LEMI-004 flux gate magnetometer is the second variometer. The sensors are directed in geographic North and East directions measuring the X, Y and Z components. The temperature in the variometer

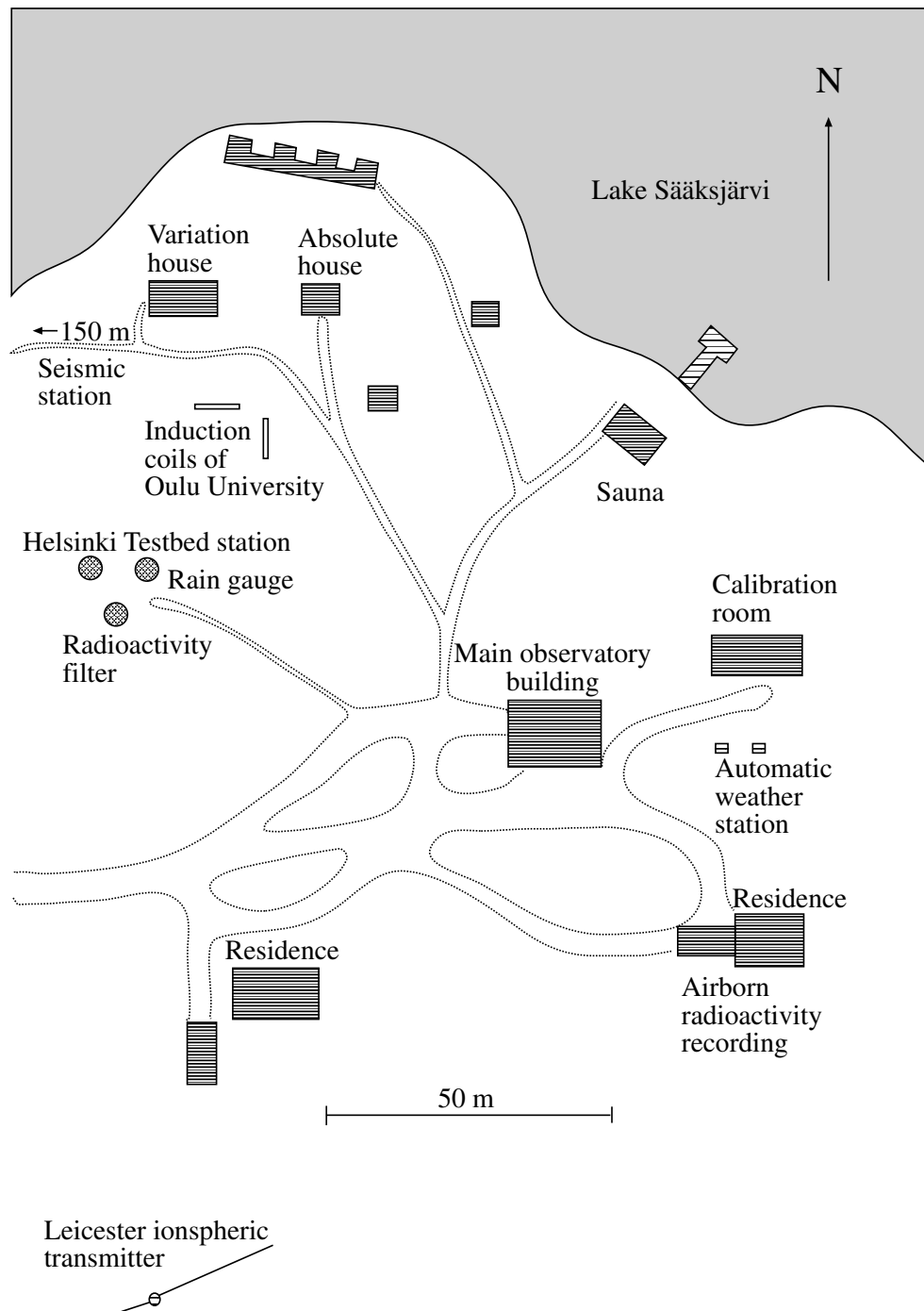


Figure 1: Formal map of the observatory.

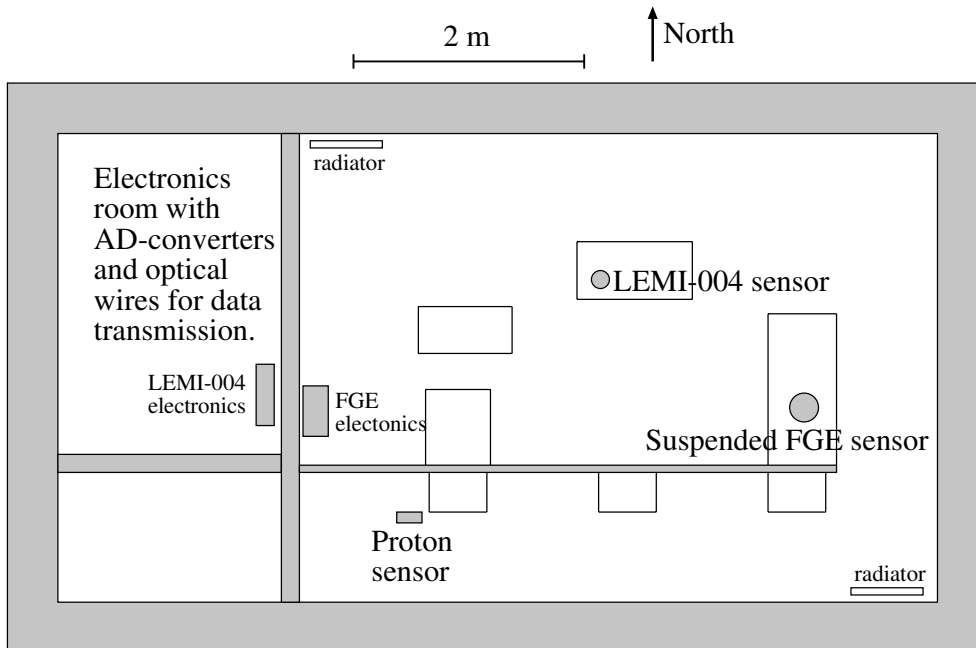


Figure 2: Drawing of the variation house of the observatory.

room is kept at  $18^{\circ}\text{C}$ . During cold seasons in the winter the temperature has dropped down to about  $16^{\circ}\text{C}$  for a few days. The FGE magnetometer data is corrected for temperature variations with coefficients  $-0.22$ ,  $-0.10$  and  $-0.05\text{nT}/^{\circ}\text{C}$ . Analog voltages from the magnetometers are AD-converted in the variation room and the digital data are transferred through optical wires to the computers in the main observatory building. The Linux based software stores the data in three files as one-second, ten-seconds and one-minute averages. Timing is based on GPS time sheared through the local network. The standard one-minute values are averages over one minute periods starting and ending at a half minute (e.g. 59:30 - 00:30, 00:30 - 01:30, 01:30 - 02:30). The given time is the starting minute at the centre of the period (00, 01, 02 etc.).

In 2006 the data acquisition suffered from several electricity blackouts and from software problems. The blackouts were often longer than the capacity of the uninterrupted power supplies and therefore a combustion engine driven aggregate was installed in the main observatory building. The aggregate proved its efficiency during November and December.

## 4 Absolute measurements

The total field ( $F$ ) was measured by a Polish PMP-7 proton precession magnetometer and declination and inclination with a DI-flux-magnetometer, which consists of a flux-gate element mounted on the telescope of a non-magnetic Zeiss-Jena theodolite (010B). The absolute measurements were done on average once a week. The base line values as determined for the FGE are shown in Fig. 5.





Figure 3: Variation house of the observatory as seen from the SWW.

## 5 Data processing and dissemination

In the processing the final base line values and sensitivities were used and hourly mean values were calculated. The measured base line values were followed closer than half a nanoTesla. All the digital data were visually inspected on the computer screen.

Tables showing the three-hour K-indices were computed from 10 s data using the 'FMI' algorithm. The upper limit for K=9 is  $750nT$ .

Daily magnetograms and K-indices were published in the monthly bulletin together with the Sodankylä Geophysical Observatory of the University of Oulu. The bulletin contains daily magnetograms of Nurmijärvi, Hankasalmi, Oulujärvi and Sodankylä, daily ionosond and riometer recordings and cosmic ray data.

Daily files of minute data were sent by e-mail for the INTERMAGNET system. INTERMAGNET CD-ROM 2004 was published in 2006 containing minute data, annual means and base line values from Nurmijärvi together with close to a hundred of other magnetic observatories.

## 6 IMAGE stations

The IMAGE magnetometer network (Fig. 4) consisted at the end of 2006 of 29 stations from Tartu in Estonia to Ny Ålesund on Svalbard. The principal investigator of this international project was Ari Viljanen at FMI. The observatory operated nine IMAGE stations in Finland (including Nurmijärvi), one in Estonia and one in northern Norway. At seven of the stations the service and absolute measurements were done in co-operation with the Sodankylä Geophysical Observatory of the Oulu University.

The data sampling intervals at the IMAGE stations were 1, 10 and 60 seconds.

The IMAGE standard used the 10 s values and they were averages over the seconds 00-10, 10-20, 20-30 etc. The time stamp given for the 10-second period was the first second of that period.

Data from MAS, IVA, MUO and PEL was transmitted through ISDN modems to Nurmijärvi. TAR in Estonia and HAN, MEK, KEV and KIL had ADSL or direct network connections and OUJ was still operated through ordinary modems. The data of the nine stations were processed and inspected at the observatory and was sent to the AVA for IMAGE filing. Data transmission from the other IMAGE stations was also operated at the observatory.

At Oulujärvi the ownership of the whole research station was changed from the Oulu University to a private company. The university rented the area of the IMAGE station for 5 years. The data acquisition computer was moved from the research station to the old absolute house of the station. The absolute measurements will be made in the new absolute house. In the table below the annual mean values are calculated for the old absolute house since 1993 and for the new absolute house since 2004. The coordinates of the station are ( $64^{\circ}31'N$ ,  $27^{\circ}14'E$ ).

Year	X[nT]		Y[nT]		Z[nT]	
1993.5	12971		1912		50591	
1994.5	12953		1935		50616	
1995.5	12951		1963		50642	
1996.5	12937		1994		50664	
1997.5	12926		2023		50701	
1998.5	12912		2051		50742	
1999.5	12902		2077		50780	
2000.5	12892		2108		50828	
2001.5	12889		2136		50867	
2002.5	12886	New	2168	New	50914	New
2003.5	12870	pillar	2200	pillar	50961	pillar
2004.5	12878	12857	2228	2247	50998	51007
2005.5	12867	12846	2256	2265	51035	51044
2006.5	12866	12845	2283	2302	51063	51072

## 7 SAMNET stations

The observatory provided 1-second data from the stations KIL, OUJ, HAN and NUR for the SAMNET magnetometer network operated by the Lancaster University in United Kingdom.

## 8 Personnel

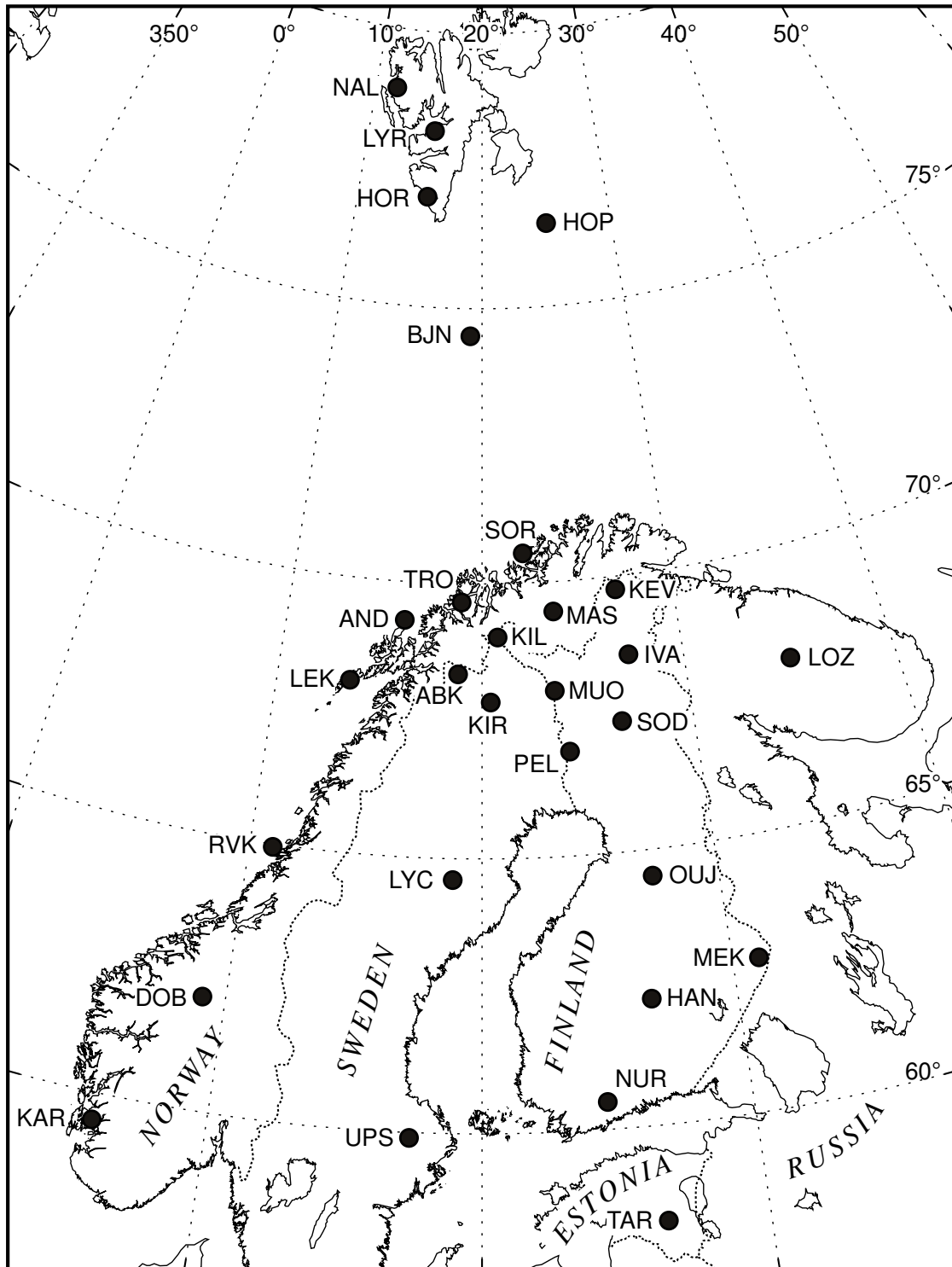
Ph.D. Kari Pajunpää, head of the observatory

M.Sc. Anja Koistinen, assistant

Mr. Pentti Posio, technician

## 9 IMAGE Magnetometer Network

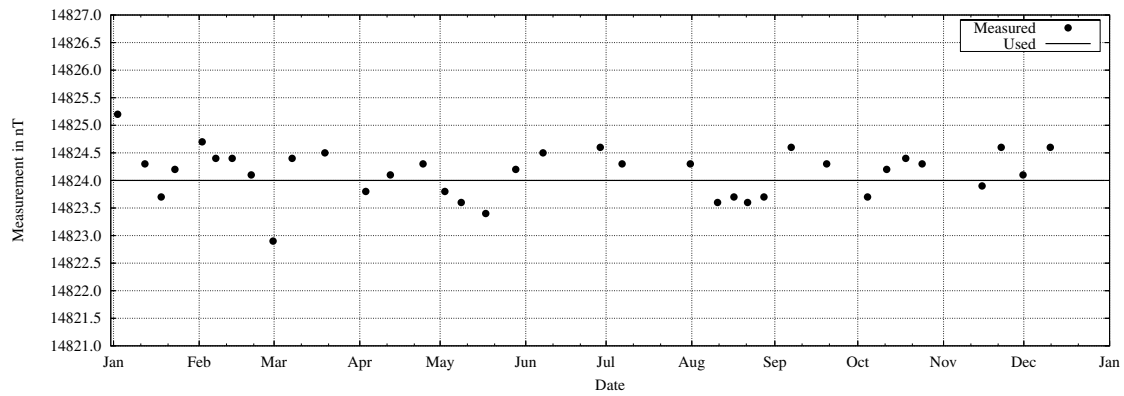
# IMAGE Magnetometer Network



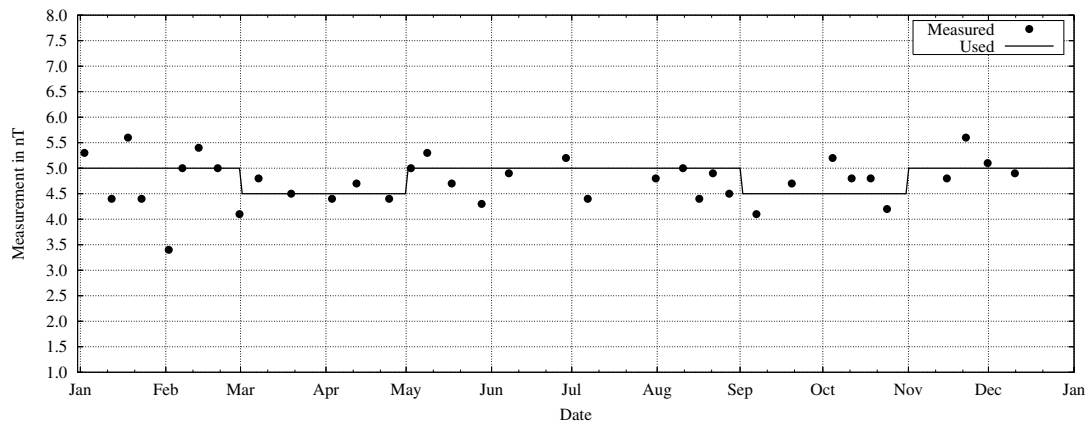
December 2004

Figure 4: Map of IMAGE magnetometer network

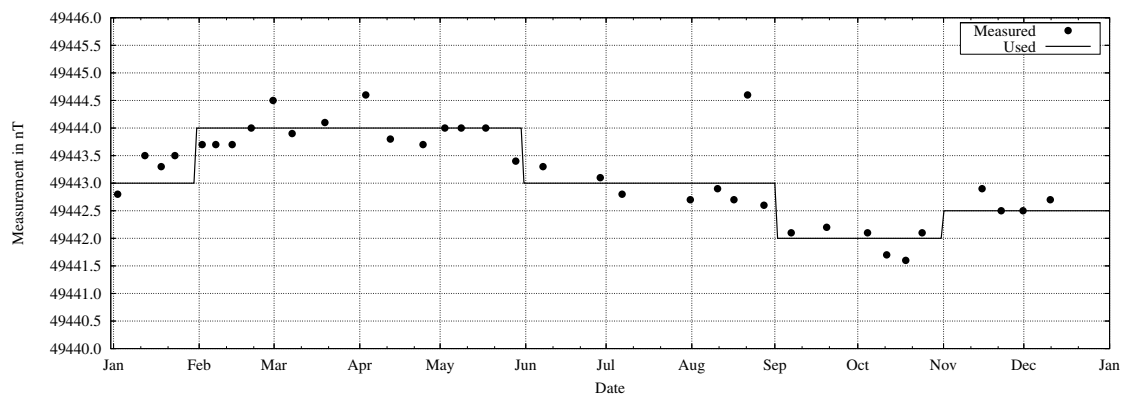
## 10 Baseline Measurements for FGE



(a) Baseline measurements for X component



(b) Baseline measurements for Y component



(c) Baseline measurements for Z component

Figure 5: Baseline measurements

## 11 Tables of Hourly Means of **X**, **Y**, and **Z**

Explanations of the tables:

- **X** is the North component of the magnetic vector
- **Y** is the East component of the magnetic vector
- **Z** is the vertical component of the magnetic vector
- The unit is nanotesla ( $\text{nT} = 10^{-9} \text{ T}$ )
- The time is universal time (UTC). The local time is UTC + 2 h (during the daylight saving time UTC + 3 h)

## Nurmijärvi Finland

January 2006 North component X in nT (X = 14800 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		86	84	80	79	78	83	87	88	90	87	86	86	90	89	100	100	102	102	97	98	91	84	85	84	89
2		86	84	85	88	97	101	101	94	85	81	76	84	88	90	90	89	92	91	90	87	88	100	96	89	90
3		85	87	86	90	91	90	90	87	86	84	83	85	85	85	80	81	77	81	86	85	83	83	85	86	85
4	Q	85	86	88	89	90	89	89	87	85	83	81	81	84	86	86	88	89	88	86	91	89	82	91	90	87
5		91	91	92	93	94	95	93	92	90	89	86	81	87	87	84	86	85	82	83	81	84	82	80	81	87
6		87	84	86	82	81	87	87	85	83	82	83	82	77	79	81	70	60	70	82	81	81	81	85	86	81
7		94	86	87	89	92	92	90	84	84	85	86	90	92	91	82	69	74	89	89	88	87	86	85	86	87
8		87	88	88	92	92	93	91	85	82	85	85	81	83	80	81	79	78	81	85	86	84	88	87	88	85
9	Q	87	87	88	90	89	90	91	90	87	86	86	88	92	93	93	93	92	92	92	92	92	92	93	93	90
10	Q	93	94	95	95	96	95	93	92	93	94	95	94	92	89	86	81	78	80	81	82	78	84	86	86	89
11		88	90	92	93	94	95	94	93	92	91	95	97	96	89	86	84	90	91	90	90	90	88	90	90	91
12		88	87	92	93	93	94	92	90	91	92	90	94	95	93	93	93	94	95	94	85	78	81	81	82	90
13		84	84	86	87	89	89	91	93	92	89	89	92	93	91	94	90	88	90	83	85	89	85	86	85	88
14		87	88	90	93	94	93	93	91	90	89	91	94	95	92	90	89	91	93	89	88	90	90	92	91	91
15		90	89	91	88	92	94	93	94	91	92	94	94	93	91	93	94	94	85	61	74	90	97	94	91	90
16	D	91	92	97	100	98	102	102	95	89	82	82	84	86	87	66	70	77	63	80	81	82	80	83	69	85
17		86	81	84	86	91	96	92	92	87	82	87	88	87	75	78	81	85	87	87	83	83	83	85	84	85
18	D	84	87	92	87	91	92	90	89	89	86	74	70	92	94	93	81	80	85	90	86	85	97	93	84	87
19		83	83	86	89	92	92	87	80	78	76	79	80	74	83	84	91	90	78	73	75	83	83	102	85	84
20		84	86	88	91	92	93	94	94	91	89	86	84	87	88	83	90	86	72	80	77	87	90	86	90	87
21		87	87	85	83	91	96	92	91	88	84	80	82	82	81	85	85	86	88	87	87	89	89	89	89	87
22		90	90	90	92	93	92	92	95	96	98	94	89	93	86	75	72	90	91	90	90	90	91	92	94	90
23	D	96	95	100	90	87	91	98	87	86	73	71	80	83	77	71	79	77	79	84	79	87	78	87	90	84
24		79	76	77	84	87	77	82	81	81	83	86	86	88	90	89	90	91	91	92	92	91	92	91	91	86
25		92	90	91	92	97	95	92	87	85	82	74	76	87	91	90	87	79	87	89	88	53	65	61	54	83
26	D	62	85	65	77	95	82	84	85	83	72	82	85	86	76	80	85	81	121	54	69	64	96	44	70	78
27	D	59	72	77	78	79	81	79	72	74	75	71	68	76	80	80	84	79	77	91	79	107	77	77	77	78
28		80	80	77	80	85	86	86	80	81	82	79	78	79	81	82	85	86	82	78	96	80	85	85	84	82
29		82	82	83	83	84	82	81	81	81	79	77	77	81	84	86	87	87	88	89	89	88	86	84	85	84
30	Q	88	87	86	88	88	89	90	87	85	84	84	81	84	87	87	87	86	88	87	89	89	88	89	88	87
31	Q	87	89	90	91	91	92	93	93	93	94	96	96	95	92	88	90	87	90	91	90	91	92	91	91	91
All Quiet		88	88	89	91	91	91	91	90	89	88	88	88	89	89	88	88	86	87	87	89	88	89	90	90	89
Dist.		78	86	86	87	90	90	91	85	84	77	76	77	85	83	78	80	79	85	80	79	85	86	77	78	83

January 2006 East component Y in nT (Y = 1700 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1		18	21	11	9	8	10	8	7	5	4	-4	-6	-4	-2	-1	-2	-3	-3	3	5	23	14	7	5		
2		1	4	4	5	1	1	3	8	11	10	4	-4	-5	-4	-1	1	1	2	4	6	12	24	2	8	4	
3		8	3	-6	2	2	5	6	7	4	1	-2	-3	-2	2	3	2	9	13	6	16	18	11	7	4	5	
4	Q	5	5	4	3	5	4	5	7	5	2	-1	-4	-4	0	2	2	1	2	3	10	7	6	6	4	3	
5		3	3	4	4	5	6	7	4	2	-1	-3	-2	-4	-7	-1	1	6	11	7	8	18	16	14	9	5	
6		10	1	6	6	1	3	6	6	3	-2	-8	-12	-11	-11	-10	-13	-9	9	9	12	21	20	7	4	2	
7		-3	7	6	9	8	4	3	4	0	-5	-12	-9	-3	1	-2	10	12	3	6	8	8	7	9	4	3	
8		3	4	2	1	2	2	1	2	1	-4	-3	-1	-4	-3	-3	6	5	2	6	8	10	17	9	4	3	
9	Q	3	2	1	1	2	3	4	4	3	0	0	0	2	2	2	2	2	2	2	3	3	3	3	3	2	
10	Q	3	2	2	2	2	3	4	6	6	4	2	-1	1	1	0	-1	0	-3	1	4	8	14	10	9	8	4
11		3	2	1	2	2	4	3	3	1	0	-9	-10	-5	-5	-10	-9	-1	1	1	10	15	9	6	4	1	
12		3	-8	-1	4	3	3	5	5	-1	-2	1	2	2	1	1	2	2	2	2	1	6	13	18	22	4	
13		13	10	4	4	3	4	5	5	4	2	-2	-7	-6	-3	-4	-6	-4	1	3	7	6	14	12	7	3	
14		3	1	-2	-1	3	5	5	5	3	1	-3	-1	1	5	5	2	3	1	0	20	4	5	7	4	3	
15		1	-2	1	7	3	4	5	3	4	3	2	2	4	4	1	-1	-1	-2	20	9	10	6	6	1	4	
16	D	0	-2	-3	-3	-2	-2	1	2	0	-8	-10	-7	-6	-17	-10	-14	1	25	62	11	10	27	38	-2	4	
17		14	7	4	-12	-3	0	4	-1	1	-2	-1	1	2	4	1	-1	4	6	9	26	23	13	8	4	5	
18	D	3	-12	2	5	8	8	5	5	1	-3	-7	-2	-7	-4	1	6	14	4	12	13	15	20	25	19	6	
19		14	9	3	3	5	5	6	8	4	-4	-6	-7	-1	-2	-1	0	3	18	15	16	16	12	10	12	6	
20		11	10	2	0	-1	-1	1	1	1	2	0	-2	1	-1	4	7	0	31	46	5	6	7	11	12	6	
21		3	7	12	5	2	8	6	4	3	2	-2	-8	-7	-8	-1	0	3	5	6	6	7	7	8	7	3	
22		5	5	6	5	4	1	2	0	0	0	-3	4	-1	-3	1	-5	2	3	5	5	6	5	5	4	2	
23	D	6	4	5	3	-2	-3	2	0	-6	-7	-31	-20	-9	-14	0	4	9	11	7	22	26	10	30	5	2	
24		8	20	13	9	12	13	12	10	16	9	4	-3	-3	-2	-3	-3	-1	2	3	5	6	6	5	5	6	
25		4	5	3	3	2	6	9	10	11	9	2	-2	-1	2	3	2	2	3	1	48	65	57	53	70	15	
26	D	66	50	40	-32	8	16	13	11	5	10	9	-1	-19	-8	-14	-6	-10	75	18	10	25	35	50	14	15	
27	D	26	10	10	10	8	9	9	7	10	-1	0	-3	-1	-1	12	26	7	11	23	17	35	23	12	-4	11	
28		-1	15	14	14	8	8	9	12	13	8	5	7	5	4	4	5	5	4	4	10	21	16	12	9	17	9
29		10	7	3	5	7	11	10	8	6	5	1	-2	-3	0	4	6	8	9	9	9	9	9	9	7	6	
30	Q	8	9	8	9	9	10	11	14	14	9	5	4	-1	0	1	2	3	3	8	9	11	11	10	10	7	
31	Q	10	6	5	6	5	6	6	5	4	3	-1	-4	-5	-4	-1	0	3	12	4	6	7	9	9	11	4	
All Quiet		8	7	5	3	4	5	6	5	4	1	-2	-3	-3	-2	-1	1	2	9	10	12	14	13	9	5	5	
Dist.		5	5	4	4	5	5	6	7	6	3	1	-1	-1	0	1	1	4	4	7	8	8	7	7	4	4	
		20	10	11	-3	4	6	6	5	2	-2	-7	-6	-8	-8	-9	-2	3	4	25	24	15	22	23	31	6	

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February 2006 North component X in nT (X = 14800 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1		90	91	91	91	92	93	94				90	91	90	81	79	87	90	91	90	91	89	90	87	87	(89)	
2		80	84	85	88	91	90	89	86	83	88	86	85	91	92	91	92	91	86	78	67	71	82	84	89	85	
3		86	86	86	83	87	88	90	92	87	86	91	93	91	89	89	91	90	82	78	83	76	88	89	85	87	
4		86	84	85	83	85	91	92	85	85	87	88	83	83	85	83	81	83	86	87	90	91	92	91	88	86	
5		91	88	89	91	92	93	94	92	93	93	94	93	95	95	96	98	99	100	101	104	98	98	93	92	95	
6	D	91	95	101	97	95	107	103	92	86	82	83	81	79	65	73	69	65	67	67	57	48	32	77	78	79	
7		86	82	79	81	84	86	84	82	85	87	89	90	89	89	88	89	93	92	89	82	82	84	85	80	86	
8		79	84	85	89	90	89	91	92	93	95	94	92	88	86	86	87	89	92	93	95	94	94	93	91	90	
9	Q	90	90	91	91	93	94	95	93	90	90	91	92	91	95	96	96	96	94	94	93	95	91	91	92	93	
10		90	90	92	94	95	98	98	97	96	96	98	97	96	95	96	97	98	100	100	95	98	93	90	94	96	
11		93	93	92	98	99	99	99	101	100	98	96	92	91	84	91	95	84	71	89	92	90	92	94	93	93	
12		93	90	91	82	88	93	94	92	94	94	94	92	92	86	81	84	85	86	89	91	91	91	90	90	90	
13	Q	90	89	90	89	89	90	90	86	85	87	90	94	97	97	92	87	87	86	87	86	87	89	96	91	90	
14		90	92	92	94	93	93	93	92	90	88	87	89	95	98	97	95	94	92	92	93	93	94	95	95	93	
15	D	94	93	94	97	97	102	102	104	96	94	89	85	94	94	86	77	83	91	92	93	91	80	88	88	92	
16		88	89	92	90	92	95	90	89	86	84	87	88	86	85	85	89	90	88	85	84	83	93	87	87	88	
17		85	84	83	79	86	87	87	90	85	82	82	82	81	86	85	87	92	91	93	93	92	93	92	(87)		
18	Q	89	90	89	89	89	90	91	89	87	84	85	88	86	89	95	94	94	93	96	99	99	100	98	96	91	
19		96	94	93	95	93	88	82	85	91	94	90	92	93	95	95	93	93	87	84	85	86	78	80	77	90	
20	D	84	88	87	89	95	98	93	84	81	76	75	87	73	81	97	44	38	62	61	67	81	91	73	90	79	
21	D	81	74	68	67	85	84	80	78	71	76	79	54	73	78	74	82	80	102	90	79	88	87	84	87	79	
22	D	81	76	69	79	86	92	77	71	81	79	64	65	83	80	82	79	67	81	95	82	93	79	83	81	79	
23		85	86	86	82	82	87	81	74	76	76	79	82	83	85	86	86	87	86	85	88	89	91	92	88	84	
24		84	88	85	89	90	88	88	86	82	80	82	74	72	71	78	84	85	87	89	91	92	91	92	91	89	85
25	Q	88	87	84	85	87	89	89	87	81	76	76	80	85	88	91	91	91	91	92	93	93	92	92	91	88	
26		89	91	88	90	94	94	93	90	88	85	86	90	93	93	90	78	71	56	75	78	80	79	98	79	85	
27		84	81	81	87	89	87	84	85	79	77	80	82	84	87	90	90	90	92	94	97	95	92	93	90	87	
28		89	90	91	92	92	92	92	91	84	79	69				94	92			89	92	88	87	84	93	90	(88)
All		88	87	87	88	90	92	90	88	86	86	85	86	87	87	88	86	85	86	88	87	88	87	89	88	88	
Quiet		89	90	89	90	90	91	92	89	87	85	86	89	91	93	94	93	92	91	92	93	94	93	94	93	91	
Dist.		86	85	84	86	91	97	91	86	83	81	78	74	80	80	82	70	67	81	81	76	80	74	81	85	82	

February 2006 East component Y in nT (Y = 1700 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1		8	8	6	5	5	5	7				-2	-6	-6	-3	-3	4	6	7	8	9	10	11	20	39	(7)	
2		29	19	15	8	8	8	8	8	5	-3	-5	-4	-3	2	4	5	6	7	4	11	23	23	12	11	8	
3		11	10	11	9	7	8	9	10	8	5	3	-3	3	4	5	4	3	3	9	52	28	7	7	12	9	
4		5	18	16	7	4	6	7	7	5	0	-6	-3	-2	-4	1	6	7	11	7	8	9	9	7	6	5	
5		4	6	8	7	8	7	6	2	6	4	0	-2	-2	-1	0	1	2	0	0	6	7	6	5	3		
6	D	3	-3	1	1	-2	-23	-12	-12	-17	-22	-25	-20	-21	-31	3	0	5	8	16	38	91	56	61	28	5	
7		12	20	15	13	12	13	9	10	8	3	1	1	0	0	2	2	3	1	6	6	10	15	13	1	7	
8		-1	11	10	10	7	6	6	3	-1	-6	-6	-3	-1	1	3	4	5	5	7	11	8	8	8	8	4	
9	Q	8	7	8	7	7	7	8	9	9	5	1	-2	-3	-2	0	2	2	3	6	6	13	17	9	8	6	
10		7	6	5	6	5	4	4	5	7	5	0	0	-2	-1	0	2	3	2	3	6	16	29	31	9	6	
11		11	11	12	16	9	5	4	1	4	5	2	1	-3	-2	-4	-2	0	20	7	6	10	13	11	9	6	
12		8	4	2	-5	5	6	4	5	4	4	4	5	4	5	4	7	11	14	9	9	10	11	10	10	6	
13	Q	8	8	7	7	7	8	8	9	7	3	0	0	2	3	3	3	3	13	11	18	13	13	18	11	8	
14	Q	9	8	8	6	5	5	6	7	6	3	1	0	-3	-2	2	3	4	5	6	6	8	9	8	9	5	
15	D	8	7	5	6	4	4	3	1	-1	-1	-7	-3	-7	-6	-6	3	5	7	5	18	20	50	24	14	7	
16		4	-6	18	18	14	10	9	3	6	5	6	1	-6	-6	-1	3	5	8	13	20	29	17	11	10	8	
17		13	11	18	15	11	14	9	7	8	4	-2	-4	-4	-1	5	7	5	7	7	8	10	15	15	(8)		
18	Q	12	10	10	10	10	10	9	8	6	1	-4	-5	-5	-2	2	3	4	4	3	3	5	8	9	11	5	
19		10	11	11	16	18	15	12	7	7	-4	-3	-3	-5	-5	-3	0	2	-2	-4	4	16	38	37	25	8	
20	D	10	14	18	20	19	16	15	4	-5	-22	-22	-10	-12	-13	23	60	2	11	50	27	1	33	22	-2	11	
21	D	17	21	10	-10	13	10	6	4	-2	5	-8	-4	-7	-1	3	27	2	36	21	9	6	13	17	11	8	
22	D	26	30	19	18	19	8	6	4	4	1	8	3	6	0	7	8	41	13	14	16	26	27	19	12	14	
23		9	16	17	14	14	11	8	9	9	2	1	-2	-4	-3	3	5	6	6	10	8	11	14	15	14	8	
24		20	-1	16	18	14	11	10	12	12	9	-2	-2	-4	-7	-2	5	8	7	8	8	10	11	11	12	8	
25	Q	14	12	9	15	16	14	14	14	15	9	2	-3	-3	-1	3	6	7	8	8	8	9	10	10	11	9	
26		12	14	15	13	12	5	6	11	11	7	-5	-11	-9	-9	-7	-3	0	3	10	10	13	13	50	34	8	
27		30	25	20	19	15	10	8	8	5	0	-7	-11	-12	-5	2	6	7	7	7	5	9	15	20	13	8	
28		10	10	10	11	12	12	13	13	10	-2	-15				-4	3	8	10	8	8	10	16	17	-3	10	(8)
All		11	11	11	10	10	8	7	6	5	1	-3	-3	-4	-3	2	6	6	8	9	12	16	18	17	13	7	
Quiet		10	9	8	9	9	9	9	9	8	4	0	-2	-2	-1	2	4	4	7	7	8	10	11	11	10	6	
Dist.		13	14	11	7	11	3	3	0	-4	-8	-11	-7	-8	-10	6	20	11	15	21	22	29	36	29	13	9	

February 2006 Vertical component Z in nT (Z = 49700 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		26	26	26	26	26	26	26				26	26	27	31	33	32	30	29	28	28	28	28	26	18	(27)
2		21	25	25	26	26	27	27	24	24	24	24	24	27	27	27	29	33	41	54	52	36	29	27	29	
3		28	29	28	28	29	29	29	28	26	26	26	27	25	25	27	28	29	33	38	9	26	31	29	25	27
4		11	13	21	23	22	24	24	23	23	26	29	30	30	32	33	34	33	33	32	30	29	29	28	26	27
5		22	21	24	25	26	26	26	25	25	26	25	23	24	26	26	26	26	25	25	25	26	26	26	26	25
6	D	25	24	22	21	18	11	10	12	15	20	29	38	44	48	45	48	53	56	58	53	30	-17	-23	21	
7		30	31	32	32	30	28	27	28	27	23	25	27	28	28	29	30	31	33	39	40	37	31	29	30	
8		24	25	26	28	28	26	25	23	21	20	20	24	24	26	28	30	30	30	30	29	28	28	27	27	26
9	Q	28	27	27	27	26	26	26	26	23	20	22	23	25	26	27	27	27	28	28	28	29	23	26	26	26
10		26	26	25	25	25	24	22	21	21	19	19	21	22	24	25	25	25	24	24	27	28	20	17	23	23
11		22	19	16	14	17	20	21	19	17	17	18	19	24	27	25	26	30	42	33	30	29	28	27	27	24
12		26	25	20	19	19	22	23	22	21	20	23	23	23	23	25	25	28	29	30	28	28	27	27	27	24
13		26	27	27	27	27	27	26	24	21	20	22	23	25	26	27	27	30	31	31	31	29	28	28	26	26
14	Q	27	27	26	26	25	25	25	26	25	25	25	24	22	22	23	24	25	25	26	26	26	26	25	25	25
15	D	25	24	24	24	24	23	22	23	24	23	21	23	23	23	23	29	34	34	33	32	34	-9	-21	5	16
16		9	-4	-2	14	19	20	19	21	21	23	24	23	26	28	29	29	30	30	34	36	31	23	27	26	22
17		27	26	23	24	25	25	28	28	26	25	25	26	28	31	32	32	30	29	29	28	28	27	23	23	(27)
18	Q	25	27	27	27	27	26	25	25	25	23	27	28	28	30	29	28	28	28	27	26	26	26	26	26	27
19		24	23	21	19	19	21	23	25	23	23	23	24	26	28	28	29	30	34	40	43	21	26	27	26	26
20	D	25	19	26	24	24	21	19	18	17	18	23	35	37	44	101	106	97	70	61	36	0	14	13	-1	35
21	D	9	12	16	11	18	20	24	29	30	33	39	48	49	49	64	56	44	40	17	34	33	32	30	8	31
22	D	-7	0	8	19	23	25	26	23	31	26	36	42	38	43	43	49	55	42	27	29	31	27	32	30	30
23		28	29	27	25	27	28	27	28	28	26	28	29	28	29	31	32	31	32	33	32	32	30	27	27	29
24		26	17	21	21	23	25	27	30	32	29	29	35	41	39	38	39	37	35	33	32	31	31	30	30	30
25	Q	30	27	25	27	28	26	26	27	28	27	26	24	25	28	29	29	29	29	29	29	28	28	28	28	32
26		28	27	28	28	26	24	24	26	24	22	21	21	22	29	33	46	56	64	52	49	45	43	27	5	32
27		15	22	27	28	26	27	27	29	27	24	24	24	26	30	31	31	30	31	29	29	30	30	29	25	27
28		29	30	29	28	28	27	27	25	21	18	24			28	30	31	31	31	31	31	33	28	29	24	(27)
All Quiet Dist.		23	22	23	24	24	24	24	25	24	23	25	27	28	30	34	35	35	35	33	32	28	25	24	23	27
		17	17	26	26	27	26	26	26	24	23	24	24	25	26	27	27	28	28	28	28	28	26	27	26	26
		25	26	19	20	21	20	20	23	23	24	30	37	38	41	56	59	57	48	39	37	17	7	12	15	

Nurmijärvi Finland

March 2006 North component X in nT (X = 14800 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1		90	83	93	94	88	94	95	93	85			80	90	93	81	85	88	91	92	92	88	89	92	89	(89)	
2	Q	90	90	92	92	92	90	92	90	82	81	80	87	90	95	95	93	93	94	95	94	93	97	93	93	91	
3	Q	90	90	93	93	95	96	97	94	84	78		86	90	94	95	97	96	90	96	95	95	94	94	(92)		
4	Q	93	94	94	95	95	96	93	84	80	75	78	87	93	97	92	88	91	91	93	95	95	95	94	96	91	
5	Q	92	92	93	93	96	98	97	94	87	83	79	84	90	94	96	94	95	95	96	96	97	97	100	96	93	
6		96	97	100	98	101	102	101	91	83	80	84	91	98	104	90	87	91	95	114	85	72	71	58	64	90	
7		58	70	87	83	84	92	78	74	70	69	70	77			82	80	84	86	87	87	91	88	88	85	(80)	
8		85	84	88	90	88	91	92	86			77	77	86	91	93	93	92	93	94	91	96	89	91	93	(89)	
9		94	94	94	95	95	93	89	82	78	76	78	78	85	89	94	92	91	94	96	98	92	84	98	99	96	91
10	D	99	100	98	102	99	98	92	93			67	81	97	88	86	94	84	83	84	93	99	101	128	68	(92)	
11		68	76	71	88	98	92	88	82	65	69	72	80	89	90	89	81	75	77	85	89	87	91	89	90	83	
12		88	88	88	90	92	91	88	80	71	68	77	83	88	96	96	93	90	90	92	97	91	94	92	91	88	
13	Q	90	89	90	91	93	95	90	84		71		82	84	90	91	90	90	93	95	94	94	95	94	91	(90)	
14		92	93	94	94	95	96	93	86	80	81	81	84	88	86	86	89	91	92	94	94	96	97	98	99	91	
15		107	104	102	98	104	107	104	98	93	80	70	81	86	89	90	90	90	94	102	96	92	97	100	100	95	
16		98	96	99	99	100	109	104	94	82	74	61	71	80	84	91	76	86	89	93	94	95	97	95	95	90	
17		93	92	93	93	93	95	95	90	83	78		83	89	93	96	93	92	93	95	95	97	99	101	99	(93)	
18	D	98	100	100	102	102	99	100	83	66	84	66	69	82	96	88	70	80	86	78	78	64	32	83	34	81	
19	D	11	46	80	70	44	76	65	46	53	56	68	66	59	88	78	82	73	72	79	101	92	87	51	74	67	
20	D	68	50	52	78	89	88	68	45	48	57	58	71	76	83	85	85	89	84	91	91	103	80	82	74	75	
21	D	81	86	77	63	86	84	86	80				65	75	81	80	90	100	60	71	72	82	95	81	83	(80)	
22		74	77	75	77	80	83	71	73	65	60	62	67	74	84	89	89	89	90	88	92	81	74	80	81	78	
23		83	82	81	81	87	86	82	75	69	70	70	74	78	85	89	91	88	89	89	90	87	86	91	88	83	
24		87	86	88	91	93	95	91	83	73		77	75	83	89	96	96	97	100	98	91	88	83	95	86	(89)	
25		90	86	86	83	95	95	91	80	71	68	71	71	76	87	95	95	91	96	93	106	95	98	101	100	88	
26		98	96	93	91	94	93	88	81	73	68	75	71	80	89	87	100	97	93	85	79	93	97	100	83	88	
27		89	78	84	86	88	90	79	67	60	58	65			84	90	97	83	93	95	95	92	93	102	89	(84)	
28		89	92	93	93	82	89	90	80	68	62	66	69	76	81	86	89	91	90	96	93	95	94	97	96	86	
29		95	93	91	93	97	94	94	84	72	65	62	78	86	91	96	95	93	97	102	94	81	79	90	89	88	
30		86	88	92	94	98	98	95	83	69	63	61	69	76	79	83	87	91	95	99	99	102	97	94	96	87	
31		95	94	95	98	103	106	100	85	71	51	63	85	87	86	85	83	92	98	98	98	90	94	96	95	89	
All		86	87	89	90	92	94	90	82	73	70	71	78	84	89	89	89	89	90	92	92	90	90	92	87	86	
Quiet		91	91	92	93	94	95	94	89	83	78	79	85	89	93	93	92	93	94	94	95	95	95	95	94	91	
Dist.		71	76	81	83	84	89	82	69	55	66	65	70	78	87	83	84	85	77	81	87	88	79	85	67	78	

March 2006 East component Y in nT (Y = 1700 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		10	7	10	21	17	11	10	9	9			-14	-19	-12	4	3	4	6	7	7	9	11	13	11	(6)
2	Q	10	9	11	12	12	11	12	14	12	2	-5	-11	-10	-6	0	4	5	5	6	8	11	12	19	15	7
3	Q	18	12	12	11	11	11	14	17	15	9		-8	-6	-2	3	4	5	10	5	7	9	10	9	(8)	
4	Q	10	10	11	9	12	13	16	20	18	7	-5	-10	-8	-5	0	1	4	8	7	7	8	9	10	11	7
5	Q	11	10	12	12	11	13	17	20	18	7	-2	-11	-11	-6	0	4	5	5	6	6	8	13	10	7	
6		7	8	10	10	10	12	16	19	16	5	-6	-13	-15	-20	-18	-15	-21	-12	36	29	25	65	53	62	11
7		45	56	60	35	21	19	13	9	5	-1	-7	-15		-3	2	6	8	8	9	10	9	11	10	(14)	
8		12	10	14	17	14	14	15	16	4	4	-2	-8	-10	-7	-1	3	4	6	21	22	32	37	20	5	(10)
9		8	11	12	14	14	14	19	19	14	2	-6	-9	-8	-6	0	2	1	0	21	45	26	5	5	7	9
10	D	10	9	11	11	6	7	12	14			-6	-14	-20	-21	-7	3	9	21	24	7	5	23	67	-10	(7)
11		23	25	12	22	18	13	16	15	10	3	-6	-4	-8	-4	5	13	14	16	8	9	11	15	12	11	10
12		11	12	13	12	11	10	14	17	12	2	-8	-12	-9	-2	5	9	8	14	23	16	11	9	10	10	8
13	Q	10	10	9	9	8	11	18	20		5		-7	-5	-3	2	6	6	7	7	8	8	11	19	12	(8)
14		10	10	11	11	11	13	17	21	20	9	-6	-18	-22	-16	-5	5	7	7	9	8	8	8	8	9	6
15		11	14	14	9	7	9	16	17	16	6	1	-7	-13	-11	-4	3	5	18	34	20	11	6	6	5	8
16		7	8	8	11	5	8	14	18	12	3	-3	-9	-19	-15	-9	19	21	5	5	7	12	11	10	9	6
17		10	11	11	13	13	13	15	14	13	3		-14	-14	-8	2	8	7	7	9	8	10	8	6	9	(7)
18	D	10	11	12	12	16	14	15	13	14	-4	-28	-12	-20	-23	-24	-7	41	17	20	37	62	42	54	74	14
19	D	43	0	36	44	6	21	-3	6	11	0	-14	-16	-1	-4	-6	33	36	20	16	16	27	66	80	43	19
20	D	37	28	13	9	-2	15	20	10	4	1	6	4	-4	-4	-3	18	38	30	28	23	36	21	10	-3	14
21	D	1	8	11	1	2	22	24	26			-11	-20	-18	-6	17	58	66	42	31	26	21	9	18	(16)	
22		-2	9	2	16	18	19	24	23	22	16	1	-10	-15	-13	-2	7	11	10	21	32	44	25	6	-2	11
23		11	17	20	19	17	21	25	27	24	14	0	-7	-8	-4	4	11	12	12	12	12	13	11	10	13	12
24		13	8	13	12	11	15	22	27	24		-5	-12	-16	-12	-4	2	3	3	4	2	13	13	19	19	(8)
25		9	24	22	14	18	25	28	27	22	19	4	-10	-15	-13	-7	3	10	9	13	33	23	13	9	8	12
26		10	12	14	16	15	20	26	27	22	10	-9	-17	-19	-17	-9	-7	-7	-1	45	15	14	18	41	19	10
27		26	20	12	2	20	23	27	27	21	9	-3	-7	-8	2	10	25	7	6	10	14	10	34	31	(15)	
28		14	12	12	13	9	11	22	28	25	16	2	-10	-15	-12	-3	5	10	14	31	19	17	11	11	9	10
29		7	9	9	10	12	16	21	23	20	9	-2	-9	-14	-13	-6	3	7	9	17	25	29	16	32	19	10
30		13	11	18	16	17	21	27	30	26	15	0	-13	-19	-14	-4	6	10	11	12	13	13	17	14	-1	10
31		11	15	15	16	16	20	25	26	20	7	-14	-34	-32	-29	-12	4	5	8	11	39	30	13	11	12	8
All Quiet Dist.		14	13	14	14	12	15	18	19	17	7	-5	-11	-14	-11	-3	6	11	11	17	17	18	18	20	15	10
		12	10	11	11	11	12	16	18	16	6	-4	-10	-8	-5	0	4	5	6	7	7	8	10	14	11	7
		20	11	17	16	5	16	14	14	9	-1	-10	-10	-13	-14	-9	13	36	31	26	23	31	34	44	25	14



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April 2006 North component X in nT (X = 14800 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1	Q	95	93	93	93	94	96	93	82	70	63	63	72	82	92	99	91	91	97	98	99	98	97	96	95	89
2	Q	96	96	98	100	101	98	90	75	66	62	71	89	100	107	106	101	101	101	102	102	105	100	100	94	94
3	Q	99	100	99	99	100	99	94	85	75	67	64	72	83	94	98	94	97	100	103	106	107	109	107	107	94
4		102	100	99	102	106	109	105	94	82	57	58	68	78	86	89	84	89	73	74	70	72	90	77	85	85
5	D	80	87	92	66	65	75	73	69	54	42	39	74	183	155	138	70	42	67	66	74	75	78	74	81	80
6		75	76	78	76	64	59	59	54	59	39	29	36	54	66	76	79	85	86	86	85	78	80	80	82	68
7		80	82	82	81	81	80	75	66	56	55	58	63	75	81	85	83	82	82	87	87	88	90	91	89	78
8		90	87	89	89	90	88	81	73	66	64	69	74	77	77	77	86	90	90	92	93	97	99	95	80	84
9	D	90	70	86	104	106	56	22	59	34	24	44	63	71	92	66	79	78	89	97	94	25	-32	95	77	66
10		74	62	48	54	66	54	62	54	55	57	57	55	64	55	83	84	84	83	83	88	91	80	80	80	69
11		77	78	75	81	80	77	75	69	62	57	62	68	69	80	84	89	91	93	89	88	87	87	87	83	79
12	Q	85	85	85	86	88	86	77	66	55	50	51	60	70	79	84	88	87	90	95	94	93	92	94	93	81
13		96	94	97	97	100	101	90						71	89	94	108	89	88	97	99	107	101	94	94	(91)
14	D	92	95	79	73	43	-7	2	3	-25	-9	198	129	45	44	66	68	84	80	57	44	42	48	80	43	57
15	D	54	59	56	57	44	39	59	42	14	19	51	57	41	85	89	130	93	108	78	78	68	72	62	64	63
16		62	64	49	66	76	68	62	55	50	51	52	67	75	77	92	85	101	86	83	94	85	82	76	79	72
17		75	76	78	79	80	77	72	65	58	50	52	62	79	86	84	82	88	89	91	95	96	107	79	75	78
18		54	96	81	73	81	80	79	73	70	62	61	66	72	78	81	84	89	91	98	90	87	87	90	81	79
19		84	80	84	84	82	81	78	70	64	59	59	67	75	81	83	85	90	94	85	85	89	91	90	90	80
20		90	90	93	98	98	94	86	76	65	59	59	75	79	87	97	93	93	92	93	93	95	97	95	95	87
21		94	93	94	92	92	91	85	77	63	54	57	74	79	95	96	96	89	88	94	96	103	99	97	97	87
22	D	97	72	89	76	86	84	75	56	56	47	55	44	63	73	78	80	83	82	86	87	90	90	87	88	76
23		87	87	86	85	89	89	71	61	57	50	45	57	68	76	88	88	89	94	93	92	91	90	92	91	80
24		82	87	80	80	89	84	67	59	56	52	51	54	73	83	91	94	93	93	94	94	94	96	100	88	81
25		85	83	89	89	90	86	79	72	62	57	54	66	78	81	83	90	97	93	96	94	95	94	95	96	84
26		92	86	83	94	94	93	89	79	66	61	64	74	84	87	94	84	89	94	97	100	103	106	107	108	89
27		106	101	93	88	88	89	86	78	72	64	64	78	91	88	90	98	105	103	106	101	101	99	101	100	91
28		95	104	95	100	92	71	67	88	72	72	47	66	68	74	86	90	98	98	99	96	96	95	91	92	86
29		94	93	92	91	90	89	86	77	68	60	58	69	67	75	82	88	94	97	100	98	97	95	97	94	85
30	Q	94	94	95	95	95	92	88	81	71	66	68	74	79	84	89	93	94	98	98	98	98	97	97	96	89
All		86	86	84	85	85	79	74	68	58	52	60	67	76	83	88	89	89	91	90	91	88	87	90	88	81
Quiet		94	94	94	94	95	95	90	81	69	62	62	70	81	90	95	94	94	97	99	100	100	100	99	98	89
Dist.		83	77	81	75	69	49	46	46	27	25	77	73	80	90	87	85	76	85	77	75	60	51	80	71	68

April 2006 East component Y in nT (Y = 1700 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1	Q	13	14	15	16	17	20	27	29	24	11	-3	-14	-18	-14	-5	5	8	6	6	7	8	10	10	11	8	
2	Q	13	14	15	15	15	17	24	28	24	11	-4	-15	-19	-13	-5	2	3	3	4	6	8	12	12	11	8	
3	Q	11	13	14	15	18	22	27	29	22	10	-6	-19	-22	-13	-3	5	7	5	5	5	4	6	8	8	7	
4		13	13	14	15	14	18	22	25	18	6	-10	-22	-32	-25	-29	-17	-3	21	38	58	41	49	36	31	12	
5	D	26	11	6	-12	-32	-21	3	5	11	11	-7	-17	-38	-12	-62	-23	10	12	40	48	22	15	19	16	1	
6		22	26	27	28	32	18	16	29	22	15	5	-5	-9	1	-3	3	11	18	15	29	26	17	15	10	15	
7		16	12	17	17	16	23	33	34	28	18	2	-10	-10	-3	3	9	13	13	11	11	12	12	12	14	13	
8		11	15	18	21	21	24	28	30	29	20	0	-15	-20	-14	-4	-1	4	6	8	16	22	11	13	7	10	
9	D	4	-23	34	33	32	28	21	-7	3	-7	-10	-20	-22	-30	-14	-2	6	16	8	42	69	56	25	17	11	
10		28	23	9	9	20	23	17	22	25	18	7	1	-5	-1	3	7	19	39	17	24	9	21	19	12	15	
11		13	19	17	20	26	27	31	31	26	18	6	-7	-8	-6	1	10	9	12	13	14	16	14	18	15	14	
12	Q	17	19	19	21	23	28	32	29	24	15	2	-8	-12	-10	-2	7	9	14	13	14	12	11	12	13	13	
13		16	18	19	21	20	23	30				7	-12	-26	-27	-25	-23	-11	-1	7	5	7	5	5	18	24	(4)
14	D	33	51	49	40	32	-32	6	12	0	13	11	22	-21	-13	-5	14	35	98	60	78	53	26	48	29	27	
15	D	-5	23	39	36	31	21	32	30	19	1	-1	-22	-15	2	-6	53	23	38	28	48	42	34	65	44	23	
16		38	18	19	15	30	29	29	26	18	15	1	-10	-6	-5	11	11	21	15	21	17	21	17	13	15	16	
17		8	8	22	25	26	29	34	33	23	12	-2	-13	-15	-11	-6	1	9	10	11	11	17	47	35	29	14	
18		44	63	55	25	17	26	26	30	26	17	6	-4	-5	1	5	9	14	15	26	17	16	15	17	20	20	
19		16	28	25	25	23	25	28	26	20	13	2	-8	-12	-9	-1	5	7	15	18	15	13	13	14	14	13	
20		14	14	17	19	22	27	32	30	20	7	-5	-21	-22	-18	-16	-4	4	7	17	12	11	11	12	13	9	
21		14	15	16	24	29	32	31	27	23	12	-4	-28	-31	-23	-16	-12	2	20	11	9	10	12	14	12	8	
22	D	9	-40	1	-24	23	42	31	17	19	-2	-11	-18	-26	-23	-11	1	11	11	15	15	16	17	16	16	4	
23		16	18	22	18	18	17	30	24	32	23	14	-2	-8	-3	6	13	16	15	13	12	13	13	11	12	14	
24		1	13	16	8	17	23	24	23	23	17	5	-8	-8	-1	5	12	14	14	13	12	13	12	19	19	12	
25		12	6	16	28	31	33	34	31	22	9	4	-6	-9	-2	7	10	15	14	13	9	9	8	12	13	13	
26		14	22	20	30	31	26	25	17	6	-3	-11	-14	-10	2	10	15	12	9	10	9	9	9	11	14	11	
27		17	22	24	27	29	22	19	22	18	4	-9	-18	-20	-11	-3	3	8	5	18	11	12	19	22	17	11	
28		19	19	24	33	43	45	6	15	16	8	-3	-16	-13	-6	0	8	14	13	12	14	14	14	16	15	13	
29		18	19	23	30	32	34	32	30	21	10	1	-10	-12	-7	-1	4	9	12	14	16	14	11	9	13	13	
30	Q	17	20	23	26	27	28	28	26	19	12	0	-10	-12	-9	-4	2	7	9	11	11	12	15	16	17	12	
All Quiet Dist.		16	16	21	20	23	23	25	24	20	11	-1	-12	-16	-10	-6	5	11	16	16	20	18	18	19	17	12	
		14	16	17	19	20	23	28	28	22	12	-2	-13	-16	-12	-4	7	7	8	9	9	11	11	12	10	10	
		13	5	26	15	17	8	18	11	11	3	-4	-11	-24	-15	-20	8	17	35	30	46	41	30	34	24	13	

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May 2006 North component X in nT (X = 14800 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1	Q	96	97	98	99	98	96	93	86	76	62	66	72	78	84	89	94	97	101	103	103	101	100	100	98	91
2		96	99	97	97	95	89	87	86	79	74	72	77	86	93	96	98	103	101	107	105	105	98	98	98	93
3		98	98	98	98	97	96	94	89	79	75	74	77	85	93	100	100	104	110	114	112	109	104	101	101	96
4		104	105	102	99	97	94	82	83	83	80	79	81	100	139	113	84	77	86	96	93	94	91	95	89	94
5		74	68	78	85	74	80	77	74	66	55	60	63	78	84	77	82	80	87	91	91	93	93	92	88	79
6	D	90	80	88	83	78	85	86	82	74	72	68	74	117	102	129	130	84	97	106	104	53	40	66	66	86
7	D	85	92	87	78	83	79	37	37	46	43	60	54	70	80	95	84	88	97	94	96	95	96	93	87	77
8		85	85	87	84	73	73	65	60	62	61	62	67	80	86	89	87	92	97	100	98	95	93	95	92	82
9	Q	89	87	89	90	86	80	72	66	60	55	66	74	79	82	85	95	99	99	96	99	98	98	97	97	85
10		98	98	99	100	97	89	79	72	66	64	66	74	81	84	90	98	99	105	110	117	120	91	97	86	91
11	D	84	97	91	74	95	98	83	60	66	61	67	84	90	95	93	94	89	104	105	104	94	82	66	81	86
12	D	77	68	73	90	86	60	40	46	46	57	67	74	93	113	103	103	109	100	97	95	92	92	90	93	82
13		82	75	94	85	69	79	69	64	62	66	77	88	99	98						99	95	95	94	91	(83)
14		91	77	92	91	84	75	74	67	62	63	68	69	80	92	92	95	99	99	103	100	94	97	94	94	85
15		95	93	94	93	90	81	71	65	66	70	81	86	91	89	89	98	99	97	97	99	98	101	97	94	89
16	Q	89	91	93	93	90	83	78	70	63	62	64	77	90	98	97	97	97	103	101	98	98	97	96	94	88
17		94	95	92	90	88	86	88	87	81	73	79	86	95	95	107	86	108	97	104	105	108	112	109	108	95
18	D	105	107	108	108	104	100	91	76	63	68	76	82	93	98	104	139	115	109	96	73	82	91	94	86	94
19		88	90	88	83	83	80	77	82	78	77	81	83	86	90	92	97	95	103	114	103	96	98	97	96	90
20		90	90	92	89	94	95	91	82	76	69	73	71	85	90	91	104	89	106	105	100	97	99	96	93	90
21		86	83	99	100	99	94	90	89	80	73	77	78	85	88	92	94	103	126	115	93	96	89	91	88	92
22		88	88	93	99	98	93	88	83	71	70	76	79	76	81	91	111	109	98	107	104	102	109	90	94	92
23		90	70	87	98	92	83	75	72	71	69	64	74	92	104	104	103	105	104	102	102	98	98	97	90	90
24		98	101	100	97	91	82	82	79	76	78	74	81	98	101	109	104	106	106	108	108	106	105	103	102	96
25		105	108	108	103	98	90	83	74	64	67	78	77	89	93	97	97	101	107	110	108	102	98	94	93	93
26		89	91	94	98	93	90	81	70	61	61	68	82	96	102	101	106	99	103	106	103	99	98	98	99	91
27	Q	98	97	94	91	88	80	71	65	61	63	70	82	92	99	99	99	101	104	106	105	104	104	101	101	91
28		103	105	104	101	95	90	85	76	63	58	69	57	87	93	97	102	112	107	107	103	99	94	93	96	91
29	Q	94	93	94	93	93	89	78	64	54	49	52	69	87	98	98	102	103	107	106	102	101	97	102	91	88
30		92	94	93	93	92	88	85	79	70	65	81	92	88	83	120	109	114	127	121	134	121	118	117	112	99
31		104	99	103	99	94	89	87	78	64	60	66	75	93	99	106	105	100	99	112	109	107	108	109	110	90
All		92	91	94	93	90	86	79	73	67	65	70	76	88	94	98	100	99	103	105	102	98	96	96	94	95
Quiet		93	93	94	93	91	86	78	70	63	58	64	75	85	92	94	97	99	103	102	101	100	99	99	96	89
Dist.		88	91	90	87	89	84	67	60	59	60	68	74	93	97	105	110	97	101	100	94	83	80	82	83	85

May 2006 East component Y in nT (Y = 1700 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1	Q	19	19	23	26	28	32	34	32	21	9	0	-13	-16	-11	-5	-1	4	7	10	11	11	13	14	14	12
2		16	20	24	26	28	30	30	28	20	8	-3	-12	-13	-9	-4	-1	1	4	5	6	10	15	14	16	11
3		17	19	18	22	22	25	31	30	20	8	-5	-15	-17	-14	-10	-5	-2	2	5	5	10	15	16	16	8
4		17	18	23	26	30	37	45	22	15	3	-13	-30	-42	-42	-19	6	2	3	6	12	13	18	24	23	8
5		27	13	49	46	34	17	17	13	4	-8	-17	-19	-18	-12	-3	4	7	10	12	14	14	15	18	23	11
6	D	19	25	29	37	39	33	33	28	20	9	-1	-7	-21	-38	-46	-26	-20	-4	6	10	40	69	46	20	12
7	D	21	17	17	18	25	32	26	-5	7	6	-1	-3	-9	-2	9	3	10	27	13	14	11	11	11	17	11
8		10	12	21	25	35	35	30	29	24	8	-4	-9	-10	-5	3	11	16	15	13	12	14	17	19	19	14
9	Q	20	24	27	33	36	35	33	30	21	10	2	-3	-5	0	4	6	11	13	12	12	10	12	13	14	15
10		16	20	24	27	30	33	34	33	21	2	-11	-19	-14	-6	-1	3	5	5	2	1	14	26	25	32	13
11	D	21	41	46	44	32	41	41	37	20	7	-2	-6	-10	-6	9	-3	4	8	15	50	28	24	-6	41	20
12	D	47	39	1	33	44	42	37	26	15	-2	-7	-8	-15	12	10	-3	11	16	11	14	19	20	19	28	17
13		28	21	31	38	37	28	30	26	18	10	-1	-8	-13	-4						17	13	13	13	10	(16)
14		6	0	22	39	44	41	36	27	16	4	-7	-11	-6	3	9	11	10	14	18	16	12	13	11	12	14
15		17	20	28	34	36	38	33	21	12	3	-4	-8	-11	-8	0	7	13	15	12	12	14	8	11	15	13
16	Q	17	22	29	34	37	35	32	25	15	3	-5	-9	-8	-2	6	8	10	13	14	11	11	11	16	17	14
17		23	23	20	34	28	24	22	22	17	6	-4	-11	-14	-9	-5	1	3	11	9	10	6	9	16	13	11
18	D	20	21	33	41	49	49	42	33	16	-4	-10	-15	-16	-13	-6	2	5	22	35	32	20	14	6	16	16
19		19	28	32	33	36	28	27	21	13	5	-4	-8	-6	-2	3	9	13	8	23	16	11	10	6	11	14
20		26	22	31	35	41	45	46	45	29	17	4	-5	-5	-1	5	10	13	13	18	17	14	12	12	13	19
21		10	-1	17	36	38	38	35	29	21	14	2	-9	-9	-2	6	10	13	15	16	29	39	21	19	18	17
22		23	13	15	25	41	43	39	31	20	9	-2	-9	-7	-1	3	7	11	15	11	8	12	37	35	14	16
23		18	7	27	37	45	50	49	42	34	20	3	-3	-2	1	5	11	13	11	10	12	12	13	14	15	19
24		18	24	27	31	36	37	31	26	17	5	-7	-10	-12	-6	-2	10	11	8	5	5	7	9	12	15	12
25		17	24	28	31	35	33	30	24	14	5	-5	-10	-7	-1	-2	1	3	6	8	9	14	16	16	9	13
26		21	30	35	39	40	42	41	38	31	17	0	-8	-12	-10	-1	7	11	10	13	13	13	13	16	18	17
27	Q	18	15	21	30	36	41	40	33	18	1	-13	-19	-20	-14	-3	6	9	11	11	11	12	11	14	19	12
28		20	22	30	38	31	27	27	30	23	11	-9	-16	-19	-12	-4	2	8	15	16	15	23	28	31	28	15
29	Q	29	30	35	38	39	35	40	40	37	24	7	-8	-15	-12	1	6	8	10	15	13	15	16	25	25	19
30		23	25	31	33	33	31	30	28	17	11	-1	-17	-20	-15	-18	-11	1	-1	2	9	14	12	14	15	10
31		17	12	23	30	34	38	40	30	19	11	2	-8	-17	-19	-14	-3	1	2	2	8	9	12	14	19	11
All Quiet Dist.		20	22	26	33	35	35	34	28	19	8	-4	-11	-13	-8	-2	3	7	10	11	14	15	17	17	18	14
		20	22	27	32	35	35	36	32	22	9	-2	-10	-12	-8	1	5	9	11	12	12	12	12	16	18	14
		26	28	25	35	38	39	36	24	15	3	-4	-8	-14	-9	-5	-5	2	14	16	24	24	27	15	24	15

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June 2006 North component X in nT (X = 14800 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		109	106	111	106	100	95	88	86	86	90	90	76	77	91	102	113	104	113	121	117	104	96	94	97	99
2		100	93	98	94	85	84	84	77	71	60	58	76	87	96	100	101	104	107	105	106	102	103	100	97	91
3		98	96	102	100	101	96	92	88	80	76	74	79	86	84	92	100	104	106	106	103	102	100	96	97	94
4	Q	98	100	100	98	100	99	96	86	73	71	72	69	76	82	90	99	101	106	109	106	104	101	102	100	93
5		100	102	105	104	101	91	84	84	79	76	76	76	82	85	92	101	108	116	116	117	111	108	106	104	97
6	D	105	103	97	105	109	104	84	58	41	51	60	66	90	72	111	124	136	136	116	108	83	82	56	80	91
7	D	66	63	45	76	77	63	58	61	52	43	33	53	76	87	80	99	123	102	104	107	94	94	69	75	75
8	D	94	79	73	70	70	65	65	44	59	64	45	68	84	85	117	134	113	141	102	102	100	89	83	70	84
9		66	66	71	93	96	80	64	62	57	55	62	66	79	99	106	110	111	109	118	114	101	89	84	86	85
10		83	84	90	87	83	69	68	62	52	54	68	89	91	89	97	102	104	113	107	99	93	94	88	81	85
11		94	92	96	97	98	89	75	66	57	61	57	59	69	96	103	106	104	101	97	100	100				(86)
12		91	93	92	94	88	79	68	63	63	63	68	71	87	90	98	111	105	97	94	94	93				(86)
13	Q	92	90	95	96	89	80	72	63	63	68	80	93	105	104	104	96	96	97	98	103	103				(90)
14		97	97	95	95	90	87	84	79	78	77	83	82	85	91	90	98	104	106	118	116	111				(93)
15	D	104	108	107	108	103	90	83	82	62	47	60	60	85	113	125	97	119	115	113	101	102	100	88	82	94
16		83	83	84	88	84	80	70	61	67	73	78	71	77	89	105	112	114	113	107	108	110	90	89	97	89
17		100	100	93	96	99	90	81	81	67	79	74	80	83	87	100	102	102	114	103	110	100	96	94	93	93
18		91	92	94	93	89	82	74	68	64	54	58	77	75	83	89	94	100	104	100	103	100	99	97	97	87
19		95	93	96	98	91	87	83	75	73	71	73	76	78	84	90	95	96	95	96	98	99	99	98	98	89
20		98	95	97	100	99	97	92	84	76	67	72	80	89	88	92	98	99	103	105	105	105	102	102	103	94
21	Q	103	103	103	102	96	85	75	71	75	81	86	92	99	105	108	100	99	98	112	114	112	110	108	110	98
22		107	110	110	104	105	96	91	85	78	81	84	89	95	106	102	109	110	105	115	117	114	102	103	102	101
23	Q	99	99	99	98	93	83	77	75	74	72	71	74	87	94	93	92	100	108	119	115	111	108	107	105	94
24		107	110	111	110	104	92	82	76	78	81	82	87	98	106	103	100	94	104	112	115	114	110	108	101	99
25		104	104	103	101	101	95	86	78	73	70	71	81	90	97	102	99	98	109	109	113	109	107	105	99	96
26	Q	99	102	104	104	97	90	82	75	73	70	74	76	89	96	104	106	107	112	116	116	115	110	108	106	97
27		106	106	108	110	107	101	94	83	78	77	80	86	98	107	101	114	125	113	126	128	125	124	120	118	106
28	D	118	120	118	115	110	105	83	77	67	67	84	79	101	126	96	111	115	118	122	108	107	108	111	114	103
29		107	107	104	109	105	96	87	77	69	64	75	77	91	109	122	93	97	114	101	111	96	97	100	100	96
30		96	102	101	94	86	80	81	76	75	62	70	82	74	87	96	104	112	124	106	104	102	101	95	94	92
All		97	97	97	98	95	88	80	73	69	67	70	76	86	94	100	104	107	110	109	109	104	101	97	96	93
Quiet		98	99	100	100	95	87	80	74	71	72	76	81	91	96	100	99	101	104	111	111	109	107	106	105	95
Dist.		97	95	88	95	94	85	74	65	56	54	56	65	87	97	106	113	121	123	112	105	97	94	81	84	89

June 2006 East component Y in nT (Y = 1700 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1		21	15	22	30	35	33	26	22	23	17	8	-3	-5	-4	-5	-4	3	4	3	12	34	17	20	14		
2		26	26	32	35	27	21	23	19	20	6	-8	-15	-13	-11	-6	2	8	11	8	7	13	14	15	20	12	
3		25	21	27	32	33	37	39	39	31	18	5	-5	-6	-1	3	6	9	17	14	12	14	15	15	14	17	
4	Q	21	25	27	27	26	24	23	22	20	17	10	-2	-8	-9	-10	-7	-1	4	7	10	14	16	18	18	12	
5		21	22	21	26	29	29	34	36	38	29	16	6	-3	-7	-7	-2	3	6	13	8	5	4	9	14	15	
6	D	19	19	20	25	34	36	36	30	15	5	-18	-23	-32	-25	-23	-8	-13	-2	26	61	15	22	29	43	12	
7	D	53	39	24	57	59	49	38	44	37	17	6	-4	-10	-10	0	13	18	7	16	17	23	39	-3	30	23	
8	D	57	51	36	42	38	30	36	26	24	16	2	-11	-11	-12	7	7	11	34	12	14	11	20	29	21	20	
9		33	0	26	45	49	49	48	45	29	14	-7	-16	-14	-7	0	15	19	12	27	28	17	25	18	25	20	
10		20	28	32	42	43	46	36	38	33	20	8	-6	-9	-1	2	6	13	20	13	14	15	19	22	24	20	
11		9	25	40	45	47	43	43	44	37	26	10	-1	-6	-9	-4	13	18	17	15	13	13				(21)	
12		25	28	32	40	47	51	46	38	29	17	1	-12	-12	0	6	15	21	16	14	13	15				(20)	
13	Q	26	31	37	43	45	43	38	30	13	4	-5	-9	-6	1	4	12	12	8	6	9	13				(17)	
14		29	35	36	42	42	41	40	35	30	26	17	11	7	6	13	13	5	0	0	7	11				(21)	
15	D	28	28	29	26	34	23	21	22	29	11	-3	-10	-13	-12	-4	4	2	11	8	22	25	14	12	35	14	
16		38	32	31	30	42	48	44	42	38	26	13	9	5	9	12	15	20	26	21	17	28	23	21	27	26	
17		29	29	22	25	31	20	11	33	31	29	20	9	-5	-5	-1	8	13	19	21	24	17	20	21	23	18	
18		23	25	29	31	35	29	27	28	28	12	10	3	-1	2	3	7	9	12	15	18	18	20	22	22	18	
19		24	19	24	33	39	42	43	39	31	25	18	12	10	13	14	15	18	18	15	17	18	18	19	20	23	
20		20	15	25	33	37	39	42	40	30	18	8	-2	-4	5	9	8	11	15	13	13	14	17	18	21	19	
21	Q	23	26	29	35	44	47	46	40	28	14	4	0	0	4	9	11	12	12	7	8	10	17	20	20	19	
22		23	29	27	30	38	40	46	39	28	17	0	-9	-7	-3	4	6	8	10	8	9	22	20	20	25	18	
23	Q	28	31	33	34	36	38	39	34	27	16	3	-4	-7	1	5	9	11	11	9	11	14	18	21	25	18	
24		26	28	30	30	33	34	41	41	32	23	14	1	-6	-11	-3	7	17	15	12	10	13	14	16	18	18	
25		27	41	38	42	47	42	42	37	26	12	5	-1	-4	0	9	15	17	13	13	14	17	17	23	29	22	
26	Q	27	29	32	35	37	34	29	26	20	13	1	-10	-12	-4	0	5	9	11	14	15	18	19	21	24	16	
27		28	30	30	35	44	48	47	38	25	10	-5	-12	-14	-11	-5	2	-1	3	3	8	17	7	6	16	15	
28	D	15	29	37	47	57	54	49	27	23	2	-4	-10	-15	-10	-12	8	15	24	32	21	16	15	17	22	19	
29		33	32	37	39	40	39	40	42	29	17	-2	-18	-22	-14	-3	15	12	13	20	32	16	14	16	18	19	
30		28	39	45	42	41	40	34	45	42	33	17	-1	-8	-4	1	5	11	17	11	13	12	20	22	24	22	
All Quiet Dist.		27	27	30	36	40	48	38	37	35	28	17	5	-4	-8	-4	1	7	10	13	13	16	16	18	18	23	18
		25	28	32	35	38	37	35	30	22	12	2	-5	-7	-2	2	6	9	9	9	11	14	17	20	22	17	
		34	33	29	39	44	38	36	30	26	10	-3	-12	-16	-14	-6	5	7	15	19	27	18	22	17	30	17	

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July 2006 North component X in nT (X = 14800 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		93	96	98	98	90	78	81	82	79	72	68	68	82	103	114	113	110	106	106	104	104	103	101	101	94
2	Q	101	101	102	100	94	87	79	70	59	56	65	75	86	90	96	96	100	106	110	111	108	107	102	103	92
3		104	106	106	104	99	97	88	79	72	65	68	77	89	103	111	109	106	104	100	102	101	100	100	105	96
4		106	108	107	103	98	94	93	88	87	81	85	93	121	116	93	115	114	125	130	114	98	102	95	80	102
5	D	89	87	98	71	64	48	14	46	61	60	64	58	83	100	93	98	108	100	105	105	96	80	69	85	79
6		71	81	84	88	86	71	56	57	56	68	71	75	78	89	93	92	101	114	109	103	97	93	90	91	84
7		91	90	87	88	83	82	78	74	68	72	66	73	80	111	105	106	109	97	95	101	93	91	88	88	88
8	Q	84	88	89	92	90	82	73	70	67	68	65	70	79	84	89	93	91	95	98	100	95	94	90	90	85
9		90	91	93	92	89	89	88	82	77	75	77	79	86	93	93	96	97	99	100	100	100	104	102	94	91
10		101	101	106	110	101	94	84	77	77	69	76	91	92	107	133	120	103	113	107	100	101	96	96	92	98
11		93	95	95	92	90	90	83	70	65	65	77	89	96	111	118	111	108	108	113	121	110	100	99	103	96
12	D	106	105	107	114	111	97	82	80	75	60	80	90	52	83	101	104	105	103	97	96	94	92	94	89	92
13		90	89	93	86	80	72	71	62	52	55	66	71	84	90	101	103	101	99	96	95	95	95	95	88	85
14	D	101	103	105	99	92	78	71	66	64	58	75	89	102	111	163	103	123	121	105	82	78	86	92	91	94
15		88	91	94	90	82	80	77	72	63	59	60	70	64	86	98	103	102	103	103	101	97	94	92	93	86
16		90	94	96	92	89	86	78	73	67	65	67	72	80	88	97	100	103	112	105	103	102	101	101	100	90
17		99	96	99	100	97	87	80	75	74	65	64	65	74	87	92	93	100	103	106	104	103	101	97	98	90
18	Q	97	98	95	95	93	92	91	85	76	67	66	74	88	96	95	94	95	96	104	103	104	103	102	101	92
19	Q	100	100	98	93	90	87	84	82	77	74	71	73	78	87	97	101	101	103	108	109	107	106	104	102	93
20		107	107	108	104	101	95	90	86	80	75	77	96	112	112	111	98	95	97	102	106	104	105	102	102	99
21	Q	97	99	101	100	100	99	91	82	71	64	68	79	89	94	94	95	98	101	104	107	105	104	102	100	94
22		101	103	106	103	95	91	90	88	80	74	70	77	89	103	108	103	98	101	105	106	107	108	106	104	97
23		98	102	104	98	100	98	97	86	70	67	69	74	91	99	102	100	102	107	111	109	108	108	107	104	96
24		106	104	106	106	102	95	88	83	71	59	65			88	107	109	99	108	102	98	100	100	101	108	(96)
25		105	101	89	97	103	97	86	68	60	64	70	78	96	106	106	104	102	104	105	112	111	107	102	93	94
26		94	94	101	104	94	89	83	76	73	74	76	83	88	95	102	108	108	110	107	106	107	105	103	103	95
27		98	97	105	109	102	89	74	62	59	60	69	76	83	93	113	108	102	114	125	125	128	105	97	105	96
28	D	109	109	49	46	63	76	64	44	50	40	47	60	60	89	91	93	98	92	95	92	92	93	89	89	76
29		85	84	85	93	90	82	71	66	60	53	53	59	72	85	95	99	95	94	97	104	101	97	98	96	84
30		96	97	98	95	86	76	67	64	65	63	66	71	84	95	98	93	91	98	106	108	106	104	102	103	89
31	D	105	109	106	103	98	78	72	77	86	77	79	91	91	117	87	88	97	106	105	99	88	91	89	90	93
All		97	98	97	96	92	86	78	73	69	65	69	76	85	97	103	101	102	104	105	104	101	99	97	97	91
Quiet		96	97	97	96	93	89	84	78	70	66	67	74	84	90	94	96	97	100	105	106	104	103	101	99	91
Dist.		102	102	93	87	86	75	60	62	67	59	69	78	78	100	107	97	106	104	101	95	90	88	87	89	87

July 2006 East component Y in nT (Y = 1700 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1		27	32	33	39	41	37	46	44	35	21	3	-10	-15	-13	-9	0	10	12	13	15	13	14	16	20	18	
2	Q	23	28	35	42	46	47	45	35	18	3	-7	-13	-13	-9	-5	-2	1	5	8	10	11	12	14	16	15	
3		18	23	30	41	46	48	46	41	36	30	16	5	2	6	10	12	10	11	16	16	15	15	16	15	22	
4		20	26	32	36	41	39	34	30	22	13	-1	-12	-21	-25	-32	-22	-8	-6	-7	27	22	13	47	57	14	
5	D	54	62	54	53	29	36	47	24	33	22	13	9	5	4	8	13	10	13	29	18	24	45	37	34	28	
6		29	7	42	44	51	54	51	41	36	24	7	-7	-11	-6	1	4	9	20	13	11	14	18	18	21	21	
7		26	38	42	47	48	47	42	40	32	17	5	3	0	-3	-1	12	11	13	8	9	14	14	18	20	21	
8	Q	25	26	29	32	35	35	32	33	32	26	17	4	-3	2	11	16	19	22	21	24	19	19	17	18	21	
9		24	28	30	35	36	30	28	32	27	21	9	-3	-8	-6	1	6	12	17	21	19	20	18	24	31	19	
10		35	37	37	54	55	49	45	42	32	18	0	-19	-23	-16	-18	-2	20	20	18	20	19	24	21	22	20	
11		23	26	31	35	42	44	39	34	24	12	1	-7	-10	-11	-7	4	9	8	9	13	20	18	23	20	17	
12	D	20	19	20	40	50	48	36	30	22	7	-3	-23	-20	-7	5	10	16	27	23	19	17	19	21	21	17	
13		25	19	31	35	52	48	48	45	33	21	10	0	-3	3	13	20	23	21	20	20	19	18	19	19	23	
14	D	22	27	32	39	46	50	47	39	28	13	-5	-21	-27	-30	-19	10	-1	12	25	32	36	30	20	20	18	
15		23	29	34	40	37	40	44	40	29	19	9	0	-3	1	6	11	18	21	21	20	18	15	17	21	21	
16		23	26	33	39	42	41	43	43	35	24	13	4	2	6	11	13	14	15	16	16	16	19	19	20	22	
17		20	18	24	36	49	48	44	38	37	28	14	4	0	-1	8	12	14	15	14	13	13	17	17	19	21	
18	Q	22	24	31	33	39	45	48	39	29	19	8	4	0	6	12	13	10	10	9	11	12	13	15	20	20	
19	Q	21	24	27	28	36	38	38	37	32	25	18	14	8	4	6	12	12	11	9	10	13	17	18	21	20	
20		22	26	32	35	40	40	40	37	31	23	11	-2	-4	0	6	6	8	9	12	13	15	15	22	28	19	
21	Q	29	29	34	37	40	40	43	40	31	22	7	-8	-10	-6	-2	5	10	11	12	14	14	14	15	19	18	
22		24	27	32	38	41	34	33	29	28	18	2	-8	-10	-9	1	12	17	16	13	13	15	18	20	21	18	
23		25	25	25	28	35	38	44	41	26	17	3	-9	-11	-4	1	8	13	13	11	13	14	17	21	23	17	
24		25	27	30	34	39	43	46	49	41	24	9		-8	-8	3	17	17	14	15	14	16	20	21	(22)		
25		21	26	26	17	37	50	52	45	34	18	2	-11	-13	-7	-3	2	7	8	8	8	9	15	17	16	16	
26		28	34	40	50	54	54	50	46	35	21	5	-5	-8	-3	9	15	16	16	14	14	14	15	18	22	23	
27		24	30	36	44	49	46	46	45	33	12	-3	-14	-17	-14	-12	-7	-2	4	3	4	13	27	44	37	18	
28	D	30	25	14	25	16	64	66	54	37	19	6	-8	-8	-8	1	6	19	27	22	22	24	23	24	24	19	23
28		28	26	29	40	43	45	47	43	33	21	5	-9	-11	-3	10	19	26	28	24	22	19	20	21	24	23	
30		26	29	32	41	52	50	48	43	34	24	11	-2	-4	-1	5	13	19	15	17	16	17	21	20	21	23	
31	D	25	30	39	44	49	58	54	32	27	12	-7	-25	-33	-32	-1	-8	-5	1	9	22	29	31	24	11	16	
All		25	27	32	38	42	45	44	39	31	19	6	-6	-9	-6	0	7	12	14	14	16	17	19	21	23	20	
Quiet		24	26	31	34	39	41	41	37	29	19	9	0	-4	-1	4	9	11	12	12	14	14	15	16	19	19	
Dist.		30	33	32	40	38	51	50	36	30	15	1	-13	-17	-13	0	9	9	15	22	23	26	30	25	21	20	

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August 2006 North component X in nT (X = 14800 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		95	96	94	91	84	69	83	74	58	48	65	61	76	80	100	97	105	99	99	100	97	98	99	95	86
2		81	88	76	83	89	85	72	59	63	60	63	56	70	85	95	101	103	91	94	100	100	98	98	74	83
3		81	82	83	85	83	69	63	62	62	57	61	67	77	87	90	93	96	100	98	99	94	94	93	90	82
4		91	89	89	86	85	83	75	67	62	60	68	78	80	87	93	92	94	97	101	100	101	102	100	100	87
5		103	99	94	96	90	85	82	84	85	79	82	82	91	95	93	95	100	99	99	101	100	99	98	98	93
6		96	94	96	96	93	85	72	69	68	70	74	82	90	94	100	110	109	102	106	108	109	110	108	108	94
7		112	120	102	94	109	102	40	75	80	73	53	87	71	101	97	78	92	118	90	95	91	84	84	86	89
8		77	83	84	73	58	69	50	45	48	48	67	67	84	81	92	105	82	95	101	95	89	89	89	88	78
9		83	89	86	70	76	80	74	68	57	63	53	68	76	96	89	101	90	98	94	96	92	90	84	85	82
10		83	86	86	85	81	75	71	67	63	62	64	66	68	78	90	94	97	97	99	100	99	93	93	83	83
11		88	85	93	94	87	77	62	55	55	64	70	78	97	94	100	84	92	95	94	99	98	97	92	93	85
12		94	94	90	93	93	83	67	64	60	57	60	66	75	82	105	98	95	97	94	99	96	93	90	90	85
13		91	91	91	89	86	81	71	60	63	66	69	74	81	86	90	91	94	98	100	102	102	99	99	99	86
14		96	96	98	99	94	83	72	62	57	57	64	76	89	97	96	101	94	98	94	94	94	95	93	93	87
15		94	96	98	97	91	85	81	75	66	71	78	84	87	92	92	96	95	104	107	113	115	113	112	104	94
16		99	96	98	97	94	91	85	76	69	66	65	75	92	106	102	103	97	96	99	104	104	103	99	100	92
17		99	99	101	100	96	86	78	79	76	73	78	91	103	109	102	105	107	113	110	107	107	106	106	100	97
18		95	97	103	85	84	81	79	73	64	72	73	90	72	82	86	90	95	102	103	104	104	106	102	97	89
19		95	95	92	89	87	82	83	79	72	62	69	83	87	128	154	171	160	107	109	37	10	-81	-105	-44	72
20		-2	39	81	46	53	65	66	57	51	50	57	66	67	75	87	92	87	87	82	83	81	84	82	86	68
21		82	83	87	86	75	80	78	72	61	58	64	77	74	82	90	97	107	108	88	83	82	79	66	83	81
22		82	82	95	90	86	82	72	64	47	27	41	56	78	111	79	84	94	128	88	82	87	87	87	91	80
23		86	88	89	85	77	79	61	64	61	59	63	72	80	82	83	83	88	95	95	92	90	88	85	89	81
24		87	85	89	95	94	91	84	75	68	64	65	74	85	96	102	101	96	97	92	90	90	88	91	85	87
25		85	85	85	86	86	83	75	67	60	54	60	71	82	88	90	94	94	94	93	95	96	94	93	91	83
26		94	90	91	92	92	87	80	73	68		68	75		97	92	94	98	100	101	104	106	101	98		(90)
27		100	97	102	105	104	95	87	84	83	77	74	83	92	97	124	107	104	99	103	82	80	87	87	92	94
28		83	77	73	79	79	75	71	58	53	54	58	66	76	83	92	92	96	110	95	93	96	105	90	86	81
29		76	87	90	90	82	82	79	71	64	47	64	76	84	92	95	96	97	93	94	93	95	94	92	92	84
30		91	90	91	91	86	79	73	61	60	59	63	71	77	85	94	100	105	102	97	107	100	102	97	98	87
31		98	97	97	97	99	97	88	76	68	69	73	79	87	97	100	106	92	89	64	56	55	60	79	78	83
All		88	89	91	88	86	82	73	68	63	61	65	74	82	92	97	98	98	100	96	94	92	89	87	87	85
Quiet		92	91	92	91	89	84	75	66	62	61	65	75	85	93	94	96	95	97	97	99	100	99	97	97	87
Dist.		77	87	95	85	88	85	69	72	66	58	59	75	79	102	108	106	107	108	95	76	70	52	47	62	80

August 2006 East component Y in nT (Y = 1700 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1	Q	15	41	38	40	44	17	18	36	27	18	3	-12	-7	-7	-4	7	18	14	14	14	20	21	32	36	18
2		40	40	42	32	43	49	48	46	34	22	10	0	0	4	12	15	14	15	17	19	17	16	27	43	25
3		37	25	39	44	49	54	47	40	27	13	-2	-12	-12	-3	7	17	20	21	26	28	21	21	16	18	23
4		29	33	38	40	48	52	51	43	33	22	11	4	3	6	10	13	13	12	13	16	17	20	23	24	24
5		25	31	36	41	40	40	43	36	24	10	-2	-4	1	6	13	16	20	23	22	16	15	18	20	22	21
6	D	25	29	35	42	44	42	39	28	23	14	3	-1	1	4	4	7	10	18	10	9	13	15	19	20	16
7		20	21	3	35	27	31	16	-13	-2	6	-5	-21	-27	-5	4	17	18	71	25	30	64	26	22	9	16
8		11	23	26	35	27	47	38	38	27	12	-3	-7	-1	7	13	38	19	22	38	27	21	22	23	24	22
9		25	28	30	13	33	47	51	41	31	19	5	-1	-5	1	21	24	23	29	24	23	23	31	23	25	23
10		28	30	35	42	44	42	37	35	31	18	5	-4	-3	3	6	11	14	18	20	17	19	37	40	32	23
11	Q	24	34	36	36	36	39	40	38	24	5	-3	-7	-5	9	15	16	21	23	19	20	21	19	19	19	21
12		24	24	23	33	42	40	39	40	32	22	11	-2	-7	-4	7	25	29	25	30	22	17	22	20	24	23
13		28	28	34	38	42	45	46	44	39	27	12	2	-4	3	14	22	24	21	19	19	17	17	18	15	24
14		20	27	34	40	41	39	37	30	19	11	1	-7	-8	-4	5	14	18	18	22	21	21	20	23	26	20
15		28	29	31	34	37	40	43	42	31	18	6	-4	-8	-8	-1	9	17	15	12	16	15	17	26	27	20
16	Q	27	29	34	43	44	46	45	42	33	18	-1	-12	-14	-6	7	15	20	19	18	20	20	20	20	23	21
17		25	27	31	39	43	43	39	34	24	6	-11	-20	-14	-5	7	13	12	11	10	19	15	23	25	28	18
18		30	24	32	40	33	53	33	27	19	6	-4	-10	2	7	13	17	19	16	20	20	19	21	36	27	21
19		30	30	31	36	42	49	48	41	30	16	0	-17	-24	-16	-45	11	-4	-1	26	111	98	83	147	124	35
20		D	123	132	55	11	22	37	64	55	41	28	16	4	5	7	14	24	37	29	28	34	40	36	33	30
21	D	19	17	19	26	23	29	28	28	18	5	-1	-3	-2	7	15	31	36	36	67	54	49	47	60	38	27
22		25	28	45	49	49	51	46	36	28	20	0	-11	-8	-10	9	12	25	81	69	30	21	21	19	25	27
23		21	34	44	40	40	42	33	36	33	16	6	4	5	14	21	24	26	26	27	26	26	29	24	26	26
24		25	22	23	34	39	42	43	40	30	13	-5	-13	-11	-2	8	17	24	43	33	25	24	26	22	23	22
25		Q	25	31	34	39	45	47	46	44	35	21	6	-2	-2	5	16	21	24	23	22	22	21	20	21	22
26	D	25	31	33	38	41	42	42	39	31		5	-6		10	21	24	23	20	20	21	23	23	25	(25)	
27		26	29	25	34	49	51	47	45	29	9	-10	-27	-41	-45	-33	-29	-3	17	17	48	32	32	46	33	16
28		40	44	17	38	38	52	53	46	37	28	11	4	-2	2	12	18	23	47	36	28	29	43	43	34	30
29		36	15	38	41	40	43	43	40	28	17	5	-3	-6	1	10	12	16	20	26	24	20	23	26	28	23
30		29	30	30	33	36	39	34	28	21	12	5	0	-2	1	8	13	17	33	24	36	30	27	24	24	22
31	All Quiet Dist.	26	30	33	36	38	44	47	45	33	16	3	-3	-7	-7	-6	-2	15	32	45	50	32	42	54	43	27
		29	32	32	36	39	43	41	37	28	16	3	-6	-7	-1	6	15	19	26	26	28	26	27	31	30	23
		26	30	35	40	44	46	45	41	32	20	6	-3	-5	1	10	17	20	19	19	20	19	19	21	22	23
		45	48	32	33	38	44	44	33	25	16	0	-15	-19	-14	-10	7	14	40	33	50	51	39	53	44	26

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September 2006 North component X in nT (X = 14800 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1	D	77	82	82	86	83	77	70	65	53	60	58	84	85	80	97	88	93	84	81	81	81	66	62	60	76
2		96	84	85	91	90	86	80	72	67	66	69	77	84	83	84	89	92	93	100	93	84	84	87	88	84
3		89	92	95	92	81	75	73	65	62	61	65	72	82	95	95	94	89	93	97	98	100	98	107	95	86
4	D	111	95	83	53	74	84	78	59	62	54	58														(74)
5																										(93)
6		88	87	89	90	89	82	79	71	61	56	49	62	73	84	76	82	82	91	87	97	94	91	91	92	81
7		89	89	87	86	89	87	80	67	56	66	66	74	79	82	91	79	90	93	92	91	92	92	92	92	85
8		92	91	90	89	87	82	76	69	60	52	57	68	79	84	93	91	91	96	98	97	98	104	98	100	83
9	Q	96	95	96	93	91	89	81	71	63	59	65	72	80	87	92	92	92	97	101	102	101	99	99	100	88
10		100	98	94	94	90	81	76	69	55	50	53	67	80	90	93	99	94	91	103	103	97	99	96	95	86
11		93	89	87	99	94	89	86	65	44	42	52	61	73	81	90	96	97	93	94	96	98	97	95	97	84
12		96	95	94	93	91	85	73	67	66	64	68	75	86	90	93	93	94	98	96	95	96	97	97	97	87
13		96	94	95	88	86	86	83	76	65	60	68	74	77	79	84	87	92	93	93	92	90	89	89	89	84
14		90	89	88	88	89	77	71	65	62	64	66	78	84	88	86	87	89	91	92	93	94	94	95	94	84
15	Q	93	93	91	91	91	90	84	76	69	68	70	75	84	90	93	92	93	96	98	98	99	99	97	97	89
16	Q	96	94	93	91	90	91		80	70	72	77	87	98	100	97	92	95	96	96	92	94	95	97		(90)
17	D	98	96	93	95	97	92	80	70	67	65	65	67	86	68	84	89	91	94	94	91	79	74	89	95	84
18	D	82	63	76	92	77	77	68	56	57	44	43	70	80	89	91	76	83	87	127	96	83	92	87	97	79
19		85	67	61	82	80	69	61	56	60	62	71	68	80	76	77	86	81	84	82	85	90	90	86	87	76
20		85	88	79	85	89	86	78	69	65	66	75	80	85	85	83	83	86	89	94	95	93	92	91	90	84
21	Q	89	90	90	91	88	85	80	75	73	74	78	81	91	91	86	85	87	94	97	96	97	99	93	95	88
22	Q	94	93	92	92	91	85	78	72	70	74	81	86	91	91	90	92	95	98	100	98	98	98	96	89	86
23		97	93	93	94	94	93	93	88	81	75	73	79	86	85	86	96	97	105	96	97	100	144	120	88	94
24	D	86	54	80	78	80	84	78	68	73	62	54	81	79	84	86	86	84	86	87	87	88	92	86	88	80
25		89	86	83	84	83	83	84	80	71	52	54	74	75	80	84	85	84	86	88	90	94	96	87	87	82
26		84	84	86	85	87	83	79	78	72	72	78	86	86	87	87	90	91	85	89	86	88	94	85	87	84
27		87	84	82	84	84	80	75	73	72	75	78	83	86	90	87	87	88	87	88	90	89	89	90	90	84
28		89	89	87	85	86	88	84	83	77	75	76	75	83	85	90	89	91	95	97	98	92	95	91	92	87
29		100	93	94	92	92	94	95	89	84	80	77	78	83	84	89	90	92	100	96	93	97	97	98	98	91
30		95	96	98	101	99	90	88	100	92	78	51	47	73	81	93	98	105	101	99	98	95	94	89	91	90
All		92	88	88	88	88	85	79	72	67	63	65	74	82	85	89	89	91	93	95	94	93	94	93	92	85
Quiet		93	93	92	91	90	89	82	75	71	68	72	77	85	92	92	91	91	95	98	98	97	97	97	97	89
Dist.		91	78	83	81	82	83	75	63	62	57	56	75	82	80	90	85	88	88	97	89	83	81	81	85	80

September 2006 East component Y in nT (Y = 1700 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1	D	22	28	44	47	49	51	50	43	29	8	5	-5	-12	9	18	40	28	33	43	47	37	71	74	18	32	
2		17	32	38	43	45	43	43	38	31	20	10	4	5	8	11	24	17	15	17	52	45	31	20	20	26	
3	D	34	42	44	43	39	38	35	32	29	19	11	4	8	11	16	19	20	29	27	19	23	31	30	27	26	
4		23	50	25	-5	-7	39	50	46	41	23	14														(27)	
5															9	12	20	59	30	29	21	20	22	23	18	(24)	
6	Q	13	25	38	32	27	25	25	24	24	7	-3	-6	-6	12	29	24	21	21	22	21	19	23	24	22	19	
7		32	31	27	34	30	30	22	21	15	9	2	-1	4	28	18	20	21	29	21	22	21	23	25	26	21	
8		23	31	26	27	26	33	39	41	34	22	8	0	-3	8	14	20	21	18	18	23	24	29	26	24	22	
9		22	26	30	32	36	42	45	42	35	23	9	0	-3	6	16	21	20	18	19	20	21	24	23	23	23	
10		23	24	30	36	40	42	42	39	28	13	-2	-11	-10	-6	4	13	12	11	12	17	37	29	29	28	20	
11	Q	29	38	48	55	42	43	43	35	23	19	0	-11	-13	-5	7	17	21	18	22	21	21	23	27	25	23	
12		24	28	33	35	38	42	39	32	25	8	2	2	3	10	16	20	17	18	21	28	22	25	24	25	23	
13		26	28	31	32	32	34	39	36	25	22	6	1	2	12	16	21	22	23	29	24	23	24	25	27	23	
14		28	28	31	34	38	41	36	32	27	13	4	2	5	9	15	19	20	21	23	27	23	25	27	26	23	
15		Q	28	29	32	34	35	39	42	40	31	22	10	3	3	7	13	17	18	19	21	22	23	24	24	25	23
16	Q	27	26	30	31	31	32			31	22	8	0	-5	-1	9	17	15	19	24	32	35	26	22	22	(21)	
17	D	25	26	25	29	38	40	36	28	13	8	-2	-14	-9	7	13	19	19	19	20	57	117	55	34	28	26	
18	D	29	3	20	50	41	25	25	24	22	8	-4	-9	13	12	39	40	25	35	60	36	30	11	12	38	24	
19	Q	48	35	22	32	35	33	27	35	28	23	11	16	21	21	36	35	31	31	47	35	29	28	25	23	29	
20		24	33	22	21	34	38	38	34	23	12	7	9	16	21	25	26	24	24	31	28	24	23	24	27	25	
21		29	31	32	33	34	34	32	26	18	11	5	6	10	16	19	22	19	19	21	21	26	27	27	27	23	
22		Q	31	32	34	33	33	33	33	29	22	12	8	8	9	12	16	18	18	18	18	22	23	26	28	25	23
23		31	32	33	31	31	29	25	28	23	18	12	7	5	1	3	10	10	11	23	27	15	23	30	56	21	
24	D	34	43	52	32	47	49	50	35	23	15	15	5	10	31	16	16	23	21	22	33	40	31	31	28	29	
25		27	38	35	37	39	38	36	31	23	16	4	6	7	9	17	26	27	28	26	26	30	44	43	36	27	
26		33	29	31	36	34	35	37	32	22	16	11	9	7	9	16	20	23	33	39	33	28	22	16	32	25	
27		41	47	36	33	32	33	31	26	20	16	16	14	14	13	17	22	22	28	25	24	27	29	31	32	26	
28		30	31	32	32	33	37	39	37	32	24	15	14	4	6	12	17	21	22	22	23	28	30	32	28	25	
29	Q	32	33	31	31	30	32	33	36	34	25	13	7	5	8	10	17	20	19	20	27	29	27	27	27	24	
30		27	27	27	26	26	24	-15	-10	3	5	-1	2	2	-2	0	8	10	7	13	21	27	52	72	48	17	
All																											
Quiet	Dist.	28	31	32	33	34	36	35	32	25	16	7	2	3	10	16	21	21	22	25	28	30	30	30	28	24	
		27	29	32	32	34	36	38	34	27	18	8	3	3	8	14	19	18	18	21	24	26	25	25	24	23	
		27	30	33	31	33	41	42	35	26	12	5	-6	0	15	21	29	24	27	36	43	56	42	38	28	28	

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October 2006 North component X in nT (X = 14800 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1	D	84	66	91	70	105	80	55	54	55	56	56	63	70	63	82	95	81	94	78	82	84	86	89	96	76
2		81	86	87	88	92	92	90	77	62	61	59	63	72	73	83	87	91	86	73	78	86	90	87	88	80
3		86	88	89	89	89	94	87	80	73	68	63	74	78	81	81	80	83	88	93	90	89	96	99	91	85
4		88	86	88	90	91	88	85	77	69	70	76	82	86	87	86	83	96	88	89	89	87	92	93	91	86
5		90	86	86	88	90	91	84	76	73	71	72	77	81	85	83	84	87	88	82	78	88	105	97	94	85
6	Q	94	94	94	95	96	95	90	83	75	70	73	79	80	84	89	90	92	96	97	99	98	98	99	95	90
7		96	95	94	95	96	94	90	84	76	73	79	89	99	104	101	98	91	96	86	100	99	98	102	57	92
8		79	83	86	89	90	89	85	78	72	62	58	66	74	80	86	86	88	91	93	93	92	92	92	91	83
9		90	92	91	92	90	85	87	84	75	71	73	78	81	84	88	89	90	92	94	95	96	92	94	90	87
10	Q	88	90	88	90	90	88	84	79	76	73	72	74	80	86	89	90	93	94	95	96	95	96	95	95	87
11	Q	92	92	90	90	93	94	96	89	84	81	80	78	79	83	88	90	91	87	89	92	93	95	96	92	89
12		92	91	95	96	96	94	91	85	79	76	71	72	84	92	84	81	86	93	97	97	96	97	90	88	89
13	D	89	90	91	99	100	104	93	69	43	54	56	71	61	63	75	77	69	77	86	97	-2	-20	14	38	66
14	D	72	80	69	76	95	88	85	72	67	65	62	56	68	81	75	69	76	57	80	79	83	53	51	70	72
15		77	80	75	66	82	91	85	74	67	53	55	56	68	77	80	86	83	83	91	106	80	87	79	83	78
16		86	87	87	89	91	92	84	74	70	64	65	67	73	79	71	72	77	78	83	92	85	86	89	93	81
17		86	83	84	89	91	90	89	84	79	71	69	70	77	81	85	85	89	90	90	89	90	86	86	90	84
18		86	85	86	91	94	95	89	86	79	72	72	75	82	87	87	87	89	90	91	96	97	95	93	93	87
19	Q	94	93	95	98	96	97	92	82	74	73	71	79	88	94	94	90	91	94	96	94	94	92	94	94	90
20		97	94	96	97	99	98	97	94	81	84	76	83	98	101	85	97	80	77	95	94	99	89	96	85	91
21	D	95	91	87	84	84	84	79	61	59	58	64	66	66	79	90	94	75	77	73	70	78	89	84	71	77
22		82	94	89	96	82	92	89	73	74	69	70	75	80	79	85	81	90	89	80	83	77	78	93	85	83
23		86	85	87	89	91	92	89	83	76	72	74	77	84	88	89	89	87	90	90	86	87	93	91	91	86
24		89	88	90	91	92	92	75	66	66	68	76	81	87	91	92	93	95	90	98	92	93	91	94	(86)	81
25		90	89	89	90	97	95	86	76	74	71	73	78	84	89	88	88	88	86	88	90	89	88	88	88	86
26	Q	88	90	91	91	93	93	86	77	70	65	67	72	83	87	89	87	86	89	93	95	94	94	93	92	86
27		90	90	96	98	101	104		95	85	74	76	84	91	94	92	90	91	89	88	90	94	106	97	88	(91)
28		91	91	96	100	97	90	92	83	80	79	71	69	79	84	84	69	64	72	74	81	87	74	51	92	81
29	D	79	95	80	79	91	82	80	64	55	49	51	59	67	70	66	74	76	80	82	105	70	67	42	58	72
30		69	83	74	82	87	90	79	76	72	58	46	67	69	74	78	81	89	85	84	90	86	87	85	84	78
31		91	83	85	85	86	86	82	77	72	71	74	77	82	78	76	75	73	76	73	70	74	77	87	77	79
All		87	88	88	89	92	92	86	78	71	68	67	73	79	83	84	85	85	86	87	90	86	85	85	85	83
Quiet		91	92	91	93	93	93	89	82	76	73	72	76	82	87	90	89	90	92	94	95	95	95	95	94	88
Dist.		84	84	84	82	95	88	78	64	56	56	58	63	66	71	78	82	76	77	80	86	62	55	56	67	73

October 2006 East component Y in nT (Y = 1700 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1	D	57	58	35	-12	-20	5	10	-6	5	17	18	16	14	16	37	43	44	41	32	30	29	24	24	24	23	
2		38	33	36	32	30	32	36	35	34	25	23	16	12	20	26	21	32	43	52	44	48	36	25	23	31	
3		34	32	30	27	19	23	32	39	40	31	23	16	8	13	43	40	23	21	23	27	33	28	24	30	27	
4		29	30	26	27	27	29	31	32	27	19	12	10	10	14	19	21	43	28	28	35	34	27	25	28	25	
5		27	32	33	32	34	36	38	37	30	25	20	17	15	14	18	22	22	26	35	47	38	37	31	27	29	
6	Q	29	29	30	31	32	33	35	32	32	22	9	3	3	8	14	16	18	21	22	25	26	30	31	29	23	
7		28	29	27	28	30	31	33	30	22	11	5	2	-1	-2	2	12	10	19	36	25	28	36	68	59	24	
8		29	31	28	30	32	33	33	31	23	18	11	1	6	9	16	19	22	23	25	29	39	39	33	30	25	
9		27	28	29	30	29	28	30	32	30	26	17	13	11	13	15	20	23	24	25	25	34	34	28	30	25	
10	Q	26	29	27	32	34	35	36	37	33	25	17	12	11	12	17	21	23	24	25	26	26	28	30	30	26	
11	Q	30	28	29	29	29	29	30	31	31	30	24	20	14	15	17	21	22	28	30	32	32	27	27	27	28	26
12		30	22	27	28	29	31	36	39	35	26	16	10	4	3	11	13	16	20	24	25	26	42	52	42	25	
13	D	44	30	26	20	26	31	19	27	31	0	18	11	-5	10	17	18	32	38	32	129	95	116	91	61	38	
14	D	46	35	18	-3	4	24	27	34	38	34	16	29	11	21	21	31	100	46	65	32	46	99	79	62	38	
15		47	42	37	27	25	28	36	37	36	33	13	9	8	8	22	39	28	48	45	41	46	44	43	26	32	
16		22	29	30	29	29	27	33	28	24	28	18	6	10	18	24	23	23	28	33	31	38	41	17	35	26	
17		31	30	29	29	30	30	31	33	33	30	22	15	11	15	26	28	29	26	29	31	37	36	29	30	28	
18		30	29	26	27	27	29	30	36	32	25	17	13	12	14	19	21	22	22	28	43	37	34	29	27	26	
19	Q	26	26	25	25	27	29	34	38	36	26	18	13	13	17	19	22	24	24	25	26	27	28	26	26	25	
20		24	25	23	26	25	29	32	32	30	13	7	-1	-7	-10	1	9	6	24	11	22	28	61	51	54	21	
21	D	31	41	43	40	28	31	35	41	40	29	10	6	12	29	16	84	57	50	55	19	33	43	37	16	34	
22		23	31	28	29	25	15	29	38	40	34	24	15	12	17	22	26	41	33	38	46	52	41	18	36	30	
23		38	32	29	28	28	31	35	38	35	28	15	13	16	21	25	25	26	28	27	30	31	28	24	34	28	
24		31	29	28	28	30	33	32	31	25	17	5	6	8	15	20	23	24	27	46	38	34	32	31	(26)	31	
25		28	28	31	28	27	31	37	41	32	22	16	12	15	21	25	27	29	29	29	29	31	31	30	29	27	
26	Q	28	29	28	27	28	31	34	36	35	29	21	15	12	15	26	19	19	24	28	30	30	28	27	29	26	
27		31	25	25	26	26	27	33	30	23	11	5	9	14	19	20	24	25	29	32	60	48	42	35	(27)	32	
28		27	25	24	26	31	30	30	24	22	16	10	-1	2	13	16	8	28	40	42	53	68	59	105	68	37	
29	D	57	34	45	-1	16	19	29	32	23	17	8	8	7	26	17	46	31	31	42	109	81	49	34	54	34	
30		70	49	37	24	24	29	34	36	29	25	28	23	18	28	28	32	44	30	32	34	32	31	30	28	32	
31		27	33	29	30	32	33	37	39	34	28	22	15	16	20	23	22	25	43	55	52	48	45	31	26	32	
All Quiet Dist.		34	32	30	25	26	28	32	33	31	24	16	11	9	14	20	25	29	30	33	39	40	41	38	35	28	
		48	28	28	29	30	31	34	35	33	26	18	13	11	14	19	20	21	24	26	28	28	28	28	25	25	
		47	39	34	9	11	22	24	26	27	20	14	14	8	21	22	45	53	41	45	64	57	67	53	43	33	

Nurmijärvi Finland

November 2006 North component X in nT (X = 14800 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		83	83	85	86	87	91	86	79	74	70	69	79	84	87	73	85	84	78	82	82	89	86	82	84	82
2		89	91	87	90	91	85	83	80	73	68	65	71	75	78	79	81	74	65	62	69	98	72	78	82	79
3		83	82	84	85	87	90	88	79	72	71	78	78	69	80	83	85	89	93	95	93	93	90	92	91	85
4		91	93	91	93	88	91	85	76	73	72	75	86	88	89	89	91	83	77	84	90	101	81	78	81	85
5		83	84	85	90	94	92	86	80	69	70	67	66	71	82	86	87	80	86	83	85	82	86	88	86	82
6		87	87	88	91	93	94	90	80	71	70	69	77	85	90	92	92	92	92	94	93	90	91	92	92	87
7	Q	90	90	90	91	91	91	89	84	75	70	71	80	89	94	94	94	95	94	95	95	93	92	90	90	89
8		90	92	91	93	95	95	91	83	73	70	74	83	92	95	95	95	96	96	94	94	92	92	90	88	90
9		89	93	94	96	97	96	95	88	80	76	79	86	95	106	109	106	112	109	104	73	70	76	38	12	87
10	D	18	36	81	76	83	57	69	78	69	68	23	57	71	56	48	66	66	70	74	89	72	74	83	85	65
11		81	74	73	65	77	74	64	66	64	48	43	59	65	64	67	74	72	74	87	79	88	83	78	68	70
12		78	86	83	79	79	85	84	74	70	67	69	72	76	76	79	84	83	84	87	85	87	84	84	82	80
13		80	84	83	84	87	90	84	75	66	64	69	77	82	83	84	84	85	87	88	88	88	86	87	87	82
14		88	89	88	89	91	89	86	79	72	70	73	80	80	85	83	82	85	83	83	81	77	80	80	74	82
15		94	87	89	85	92	90	89	81	74	72	73	76	79	83	86	89	87	91	92	91	88	77	64	67	83
16		60	80	86	86	87	85	84	76	70	66	67	72	77	82	82	84	86	89	85	87	87	87	87	85	81
17		83	86	86	90	92	97	89	79	71	70	71	74	74	67	80	84	85	88	88	86	83	82	84	85	82
18	Q	83	83	82	84	84	86	86	81	75	70	69	76	84	87	90	90	91	91	91	91	89	87	86	86	84
19		83	85	84	83	87	87	85	75	75	77	78	80	87	90	92	93	94	95	95	94	93	92	91	90	87
20	Q	89	89	91	93	95	95	93	89	83	76	75	79	86	92	90	89	90	91	92	93	93	91	89	89	89
21	Q	88	89	89	90	90	90	88	83	78	76	77	82	90	93	95	96	97	97	96	96	96	95	94	94	90
22		94	95	96	98	99	100	99	93	86	82	85	89	93	100	95	92	94	96	93	81	62	70	74	84	90
23		86	86	89	91	97	99	98	93	81	76	77	62	63	71	52	71	75	62	56	54	65	74	74	79	76
24	D	79	79	74	73	87	86	73	82	68	64	63	64	62	62	74	78	80	77	86	88	78	81	84	82	76
25	D	81	80	85	85	87	83	84	83	76	75	76	78	68	81	77	69	62	69	68	103	73	77	65	83	78
26		80	88	88	84	88	95	91	74	76	76	73	76	77	77	81	87	88	90	85	85	84	79	76	75	82
27		75	79	79	87	89	86	85	79	74	57	62	75	83	87	86	79	86	84	96	75	91	83	82	83	81
28		83	83	87	84	88	85	86	81	78	73	66	73	76	68	68	76	84	87	89	85	86	84	82	80	88
29		83	84	87	89	94	109	92	90	89	86	84	80	87	91	90	87	86	83	88	87	87	93	87	90	88
30	D	89	88	90	93	99	70	64	68	67	43	47	62	66	64	65	37	46	53	60	67	77	71	73	73	68
All Quiet		88	89	89	90	91	91	90	84	77	72	73	80	88	92	93	93	94	94	94	94	92	91	90	89	88
Dist.		69	71	81	78	87	74	70	75	69	60	51	64	66	66	66	65	65	69	75	85	78	77	76	78	71

November 2006 East component Y in nT (Y = 1700 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1		39	39	32	28	30	32	36	38	35	25	21	14	16	19	39	24	25	31	33	36	37	45	37	28	31
2		21	23	30	31	30	30	33	32	31	26	18	10	15	13	19	32	43	35	43	43	69	71	57	42	33
3		44	35	32	34	37	35	31	35	33	25	9	3	6	-1	7	17	21	27	29	30	34	35	32	30	26
4		27	28	31	29	30	32	39	38	32	24	18	15	14	23	27	22	21	29	29	36	50	49	44	35	30
5		34	34	32	30	30	33	36	38	36	23	13	6	1	11	20	28	36	33	34	42	43	42	36	31	29
6		31	31	30	31	32	34	37	41	39	30	18	12	13	20	24	26	26	27	30	30	33	34	36	32	29
7	Q	30	29	30	30	31	33	37	41	39	30	20	14	16	22	26	27	27	28	29	30	31	31	32	33	29
8	Q	31	31	31	30	32	33	36	39	36	25	15	11	14	21	24	25	26	26	30	28	31	30	31	30	28
9		28	26	29	29	30	32	36	40	38	31	24	16	14	15	16	18	15	13	15	43	42	77	160	127	38
10	D	136	85	25	18	27	5	-15	17	31	24	15	19	18	14	35	21	28	33	92	72	46	39	26	17	34
11	D	32	39	47	26	26	9	21	25	33	34	35	22	37	37	35	36	82	53	36	39	38	40	47	35	36
12		14	35	34	34	33	35	34	41	37	35	25	29	27	36	31	30	29	32	34	34	37	42	41	39	33
13		32	30	28	31	34	35	39	42	39	31	26	22	23	26	29	29	30	31	32	33	33	33	32	31	31
14		29	29	28	29	30	33	36	40	36	31	24	20	21	23	27	29	29	36	44	44	48	55	50	35	34
15		30	30	30	20	20	34	39	43	39	31	21	16	13	19	25	25	26	29	30	32	47	68	72	60	33
16		24	13	44	36	34	39	38	34	34	27	19	17	20	23	26	30	31	30	33	33	33	32	32	34	30
17		26	33	39	37	31	27	27	33	35	32	24	15	14	14	17	20	25	28	32	34	35	36	32	31	28
18	Q	33	35	36	34	36	36	38	40	39	34	28	23	23	24	27	30	28	29	30	31	32	32	35	40	32
19		38	40	42	40	40	38	38	38	34	32	22	19	20	24	24	23	23	26	29	31	32	31	33	33	31
20	Q	34	33	32	33	32	34	34	37	36	33	27	22	21	23	28	31	31	32	32	32	33	34	33	33	31
21	Q	32	32	33	33	34	34	35	37	35	29	25	23	22	26	27	28	28	28	29	30	31	31	31	31	30
22		30	29	28	28	29	31	32	34	32	25	20	18	18	21	26	24	24	25	26	49	79	82	57	32	33
23		27	22	23	27	32	32	30	31	36	20	20	15	8	10	23	29	29	58	71	68	84	66	18	32	34
24	D	35	38	23	3	22	11	26	23	30	35	30	21	42	25	31	37	37	32	44	37	46	39	37	38	31
25	D	41	44	25	25	21	18	24	29	31	28	26	22	33	29	20	77	51	48	57	64	48	43	43	50	37
26		44	33	32	25	18	21	29	35	30	24	21	23	19	29	33	26	27	30	34	73	76	45	62	50	35
27		19	20	25	26	27	30	33	33	39	27	14	25	27	25	27	34	30	47	60	46	38	39	35	34	32
28		31	24	27	29	32	35	37	41	38	33	31	27	22	28	34	25	32	32	33	34	45	50	45	40	34
29		33	21	23	24	9	15	34	42	38	31	25	23	23	26	30	32	29	33	32	42	53	52	55	52	32
30	D	37	32	30	10	-6	-16	4	15	37	37	40	28	20	10	87	22	38	40	43	45	52	50	44	41	31
All Quiet		35	32	31	28	28	28	31	35	35	29	22	18	19	21	28	28	31	33	37	41	44	45	44	39	32
Dist.		32	32	32	32	33	34	36	39	37	30	23	18	23	23	26	28	29	30	30	31	32	32	33	30	30
		56	46	30	17	18	5	12	22	32	31	29	22	30	23	42	38	47	41	54	51	46	42	39	37	33



Nurmijärvi Finland

December 2006 North component X in nT (X = 14800 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1		70	68	71	72	76	76	75	74	76	76	75	72	77	76	79	84	82	87	79	82	80	83	81	89	77	
2	Q	82	77	78	83	83	83	84	82	80	78	81	82	86	87	87	89	90	91	89	87	84	81	82	84	84	
3		85	84	87	87	90	94	93	88	81	75	75	80	84	88	89	85	83	88	87	86	87	82	82	84	85	
4	Q	83	82	82	86	89	90	90	87	79	75	75	80	86	90	91	90	89	88	87	86	88	86	86	86	85	
5		87	87	87	88	90	92	91	87	82	80	69	82	93	98	98	94	93	92	92	92	95	95	94	87	89	
6	D	106	80	78	91	99	93	94	89	85	81	69	60	64	62	50	45	46	58	54	35	46	66	81	62	76	
7	D	42	73	60	86	89	82	68	66	74	73	70	54	68	76	83	69	103	72	68	71	56	54	38	51	69	
8		41	56	62	55	66	77	96	89	89	83	82	69	95	82	87	82	90	86	100	90	82	74	73	77	78	
9		70	69	76	80	84	87	86	86	82	79	76	79	82	86	86	82	85	84	86	82	79	66	65	75	80	
10		76	73	75	75	81	88	84	84	79	73	64	76	85	82	70	82	64	51	73	82	88	81	105	72	78	
11		73	65	71	79	84	81	79	88	84	77	74	76	80	79	77	85	86	89	89	87	86	81	66	78	80	
12	D	78	73	77	77	72	68	77	80	76	69	61	60	72	47	58	76	80	94	65	101	70	56	52	54	71	
13		67	62	67	74	71	77	77	75	74	73	74	77	81	82	83	85	83	84	84	82	83	94	82	81	78	
14	D	80	82	79	75	83	81	83	82	76	73	78	84	81	88	84	64	133	104	113	118	93	64	-11	-94	75	
15	D	-315	-290	-361	-30	-78	11	1	-5	23	76	60	87	70	35	39	33	68	59	24	39	56	37	51	44	-11	
16		49	62	58	56	64	70	69	65	60	58	59	61	67	70	72	75	73	72	78	70	76	74	71	76	67	
17		73	71	73	76	80	79	81	78	76	74	69	69	72	75	75	75	73	78	73	82	76	75	75	75	75	
18		74	74	77	77	77	85	85	82	72	69	69	75	83	87	80	82	86	84	74	68	82	72	95	54	78	
19		65	71	78	82	84	75	89	86	78	60	65	56	71	72	61	55	66	66	65	69	73	67	70	66	70	
20		49	67	82	89	81	76	82	77	69	69	62	64	78	66	43	50	72	73	69	52	58	19	56	81	66	
21		84	76	46	81	87	83	70	62	64	63	62	57	64	64	69	79	68	98	71	75	85	79	74	73	72	
22		83	66	80	81	82	73	76	76	72	54	56	56	68	77	74	59	57	60	80	71	58	67	82	75	70	
23		67	65	69	72	80	86	76	73	76	70	65	65	60	61	65	79	66	49	44	63	73	73	72	69	68	
24		68	73	75	80	81	82	85	80	78	77	79	79	80	74	71	72	81	90	78	78	68	74	69	68	77	
25		77	73	68	79	87	88	82	79	82	79	76	74	72	77	82	80	78	79	79	81	83	83	80	76	79	
26		76	77	79	83	82	84	85	86	85	81	82	79	79	83	78	75	73	73	82	80	81	81	81	81	80	
27	Q	81	80	79	79	81	83	82	83	85	83	82	81	80	82	84	84	81	83	85	85	84	83	85	82	82	
28		81	82	84	86	86	86	84	83	85	87	85	85	86	87	87	85	86	87	86	87	93	90	81	85	86	
29	Q	86	88	89	88	89	89	90	90	91	90	87	85	88	89	89	89	88	85	85	83	83	82	83	83	87	
30		83	86	84	86	88	90	89	90	91	91	88	91	94	92	89	87	87	85	84	87	84	84	82	80	87	
31	Q	80	79	82	84	87	86	85	82	82	82	81	84	88	89	89	89	89	87	88	88	86	88	86	83	85	
All		61	62	61	76	77	80	80	78	77	75	73	78	78	77	76	76	81	80	78	78	74	73	69	75	78	
Quiet		82	81	82	84	86	86	86	85	83	82	81	82	86	87	88	88	87	87	87	87	86	85	84	84	83	85
Dist.		-2	4	-13	60	53	67	64	63	67	75	68	69	71	62	63	57	86	77	65	73	64	55	42	23	55	

December 2006 East component Y in nT (Y = 1700 nT + tabular values)

Day	Char	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
1		41	38	39	40	38	37	37	36	33	29	28	25	20	24	29	29	34	31	43	71	39	39	41	32	36	
2	Q	33	35	34	33	34	33	35	37	34	29	23	18	20	23	27	27	31	33	34	35	43	39	38	35	32	
3		32	33	30	30	31	31	36	38	36	31	24	21	22	27	28	27	31	30	31	35	47	54	46	38	33	
4	Q	37	33	32	32	32	34	35	37	36	31	24	20	22	26	29	30	31	30	31	34	38	39	35	35	32	
5		34	33	31	31	32	33	34	35	34	30	20	19	20	24	25	24	24	24	27	32	33	32	33	41	30	
6	D	39	57	42	19	41	31	33	30	27	27	23	16	-9	0	22	14	37	65	80	128	66	52	56	53	40	
7	D	10	21	28	16	22	24	27	38	36	38	31	34	22	40	33	40	87	52	55	44	43	70	57	51	38	
8		36	27	14	13	3	-18	0	36	40	42	41	47	43	32	27	37	33	26	67	55	46	44	42	38	32	
9		36	28	30	33	34	34	36	38	40	39	35	31	30	31	31	38	33	33	52	39	43	52	56	59	38	
10		42	41	35	40	30	33	39	38	35	32	32	29	24	35	63	28	59	86	35	43	53	48	44	51	41	
11		52	32	34	37	36	18	8	28	35	27	26	27	28	32	37	36	33	31	31	33	49	49	40	60	34	
12	D	59	45	44	24	-31	-18	36	40	43	32	26	29	36	55	47	36	59	86	39	81	72	83	71	50	44	
13		49	49	40	49	34	38	40	40	39	35	31	29	31	32	34	32	32	33	35	35	38	49	44	41	38	
14	D	37	23	39	34	36	40	41	39	36	34	30	29	34	35	55	57	39	48	43	72	42	55	101	101	46	
15	D	191	201	8	-110	-40	-5	35	48	54	45	52	56	118	53	42	46	70	77	60	71	83	51	79	85	57	
16		58	31	41	37	43	40	43	45	44	42	37	31	30	36	39	38	38	39	51	45	59	58	44	39	42	
17		36	29	22	30	35	38	40	41	41	39	34	31	32	36	37	39	43	41	40	46	59	41	40	38	38	
18		36	34	31	37	34	38	41	39	38	32	29	25	27	31	30	33	34	31	41	52	45	44	94	81	40	
19		50	40	29	29	32	28	28	32	33	34	35	32	37	56	45	34	49	41	52	72	69	56	51	54	42	
20		32	18	43	36	29	25	28	27	35	36	32	35	28	22	40	39	63	41	57	53	41	121	56	64	42	
21		54	65	15	22	32	31	35	34	38	43	40	45	39	37	50	48	46	62	50	45	51	54	56	51	43	
22		32	26	28	36	34	21	9	26	35	47	38	47	40	32	33	38	62	61	46	58	59	54	31	42	39	
23		44	33	31	29	35	35	33	28	46	40	32	26	29	35	37	33	35	99	76	54	44	45	43	44	41	
24		25	41	39	38	35	33	34	36	34	31	25	24	26	33	37	33	56	70	52	57	45	42	36	29	38	
25		39	37	14	29	37	30	35	36	32	34	29	31	31	34	34	35	53	40	36	39	38	35	38	40	35	
26		37	37	34	34	36	37	37	35	33	34	32	31	35	34	33	41	39	39	33	33	38	38	38	39	36	
27	Q	38	37	36	34	35	35	37	37	36	36	32	32	33	33	35	37	37	37	36	36	36	38	39	36	36	
28		38	35	34	33	33	35	37	38	37	37	34	29	30	32	32	33	32	32	33	39	45	48	44	37	36	
29	Q	34	28	29	32	32	33	34	34	33	32	29	27	29	30	30	30	29	34	37	37	41	38	40	37	33	
30		35	32	33	31	31	31	34	35	36	33	30	26	28	28	29	29	30	30	35	41	35	38	39	39	33	
31	Q	37	36	34	34	33	33	33	34	36	36	32	32	30	31	31	32	32	34	32	34	32	34	36	42	33	
All Quiet		44	40	31	27	28	28	33	36	37	35	35	31	30	31	32	35	34	42	46	50	47	50	49	48	38	
Dist.		36	34	33	33	33	34	35	36	35	32	28	25	27	28	30	31	32	33	34	35	38	37	37	38	33	
		67	69	32	-3	6	14	35	39	35	35	32	32	33	40	36	40	39	58	66	55	79	61	62	73	68	43

# 12 Hourly Means minus Monthly Means

## 12.1 All Days

North Component X in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	-1	0	0	2	4	4	4	2	0	-2	-2	-2	1	0	-1	-2	-1	0	-2	-1	-1	0	-1	-1	14886
February	0	0	-1	0	3	4	3	1	-1	-2	-2	-2	0	0	0	-2	-2	-1	0	-1	0	0	2	1	14888
March	-1	0	2	3	5	7	3	-5	-13	-16	-16	-9	-3	2	2	2	3	3	6	5	4	3	5	1	14887
April	5	5	4	4	4	-1	-6	-13	-23	-29	-20	-13	-5	3	8	8	8	10	10	10	8	7	9	7	14881
May	3	2	4	3	0	-4	-11	-16	-22	-24	-19	-13	-1	5	9	10	10	13	15	12	9	7	6	5	14889
June	4	4	4	6	3	-5	-13	-19	-24	-25	-22	-16	-7	2	8	11	14	17	17	16	11	8	4	4	14893
July	5	6	6	4	1	-6	-13	-18	-22	-26	-22	-15	-7	6	12	10	11	13	14	13	10	8	6	5	14891
August	2	4	6	3	1	-3	-12	-17	-22	-24	-20	-11	-4	6	12	13	13	15	11	9	7	4	1	2	14885
September	7	3	3	3	3	0	-6	-13	-18	-21	-20	-11	-3	0	4	4	6	8	10	9	8	10	8	7	14885
October	4	4	5	6	9	8	3	-5	-12	-16	-16	-11	-4	0	1	2	2	3	4	7	2	2	2	2	14883
November	0	2	4	5	8	7	4	-2	-8	-12	-13	-7	-3	0	0	2	2	2	4	3	3	1	-1	-1	14882
December	-14	-12	-14	1	2	6	5	3	2	0	-2	-1	4	3	2	1	6	5	3	4	3	-1	-2	-6	14875
Winter	-4	-3	-3	2	4	5	4	1	-2	-4	-5	-3	0	1	0	0	1	2	1	1	1	0	0	-2	14883
Equinox	4	3	3	4	5	4	-1	-9	-17	-21	-18	-11	-4	1	4	4	5	6	7	8	5	5	6	4	14884
Summer	4	4	5	4	1	-4	-12	-18	-22	-25	-21	-14	-4	5	10	11	12	15	14	12	9	7	4	4	14890
Year	1	1	2	3	4	1	-3	-9	-14	-17	-15	-9	-3	2	5	5	6	7	8	7	5	4	3	2	14885

East Component Y in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	3	2	0	-2	-1	0	1	0	-1	-4	-7	-8	-8	-7	-6	-4	-3	4	5	7	9	9	8	4	1705
February	4	4	4	3	3	0	0	-1	-2	-7	-10	-11	-11	-11	-5	-1	-1	1	2	5	8	11	10	5	1707
March	4	4	5	4	2	5	8	9	7	-3	-14	-21	-23	-21	-13	-4	1	1	7	7	8	8	10	5	1710
April	4	4	9	8	11	10	13	12	8	-1	-13	-24	-28	-22	-18	-8	-2	4	4	8	6	5	7	4	1712
May	6	6	12	19	22	21	20	14	5	-6	-18	-25	-27	-22	-16	-11	-7	-4	-2	0	1	3	3	4	1714
June	9	9	12	18	21	20	19	16	10	-1	-13	-23	-26	-23	-18	-11	-8	-5	-5	-2	-2	0	0	5	1718
July	6	8	12	18	23	25	24	19	11	-1	-14	-25	-29	-26	-19	-12	-8	-6	-5	-4	-3	-1	2	3	1720
August	6	9	9	13	16	20	18	14	5	-8	-21	-29	-30	-24	-17	-8	-4	3	2	5	3	4	8	6	1723
September	4	7	8	9	10	12	11	8	1	-8	-17	-22	-21	-14	-8	-3	-3	-2	1	4	6	6	6	4	1724
October	6	4	2	-3	-3	0	4	5	3	-4	-12	-17	-19	-14	-8	-3	1	2	5	11	12	13	10	7	1728
November	3	0	-1	-4	-4	-1	3	3	-3	-9	-13	-13	-11	-4	-3	-1	1	6	9	13	13	12	7	1732	
December	6	2	-7	-11	-10	-10	-5	-2	-1	-3	-7	-8	-7	-5	-2	-3	4	8	6	12	10	12	11	10	1738
Winter	4	2	-1	-4	-3	-4	-1	0	0	-4	-8	-10	-10	-8	-4	-3	0	3	5	8	10	11	10	7	1721
Equinox	4	5	6	4	5	7	9	8	5	-4	-14	-21	-23	-18	-12	-4	0	1	4	7	8	8	8	5	1719
Summer	7	8	11	17	20	21	20	16	8	-4	-16	-26	-28	-24	-18	-11	-7	-3	-3	0	0	1	3	5	1719
Year	5	5	5	6	7	8	9	8	4	-4	-13	-19	-20	-17	-11	-6	-2	0	2	5	6	7	7	5	1719

Vertical Component Z in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	-8	-6	-4	-4	-3	-2	-1	-1	-1	-1	0	1	3	4	5	6	7	7	5	5	2	-1	-4	-8	49726
February	-4	-5	-4	-3	-3	-3	-3	-2	-3	-4	-2	0	1	3	7	8	8	8	6	5	1	-2	-3	-4	49727
March	-14	-9	-5	-4	-3	0	1	1	-1	-3	-3	-1	1	5	11	14	13	10	10	5	1	-8	-10	-12	49727
April	-11	-11	-11	-10	-8	-6	-3	-1	-1	-3	0	1	7	11	14	18	15	13	8	2	-3	-13	-6	-7	49735
May	-6	-6	-5	-2	-2	-1	-1	-3	-6	-9	-9	-6	1	7	11	13	11	10	8	5	0	0	-4	-6	49735
June	-9	-7	-6	-3	-2	-3	-3	-3	-4	-6	-7	-2	3	6	11	13	13	12	7	2	0	-1	-4	-10	49739
July	-4	-2	-2	-3	-3	-4	-4	-4	-5	-7	-8	-4	1	4	8	10	11	9	7	5	3	-1	-3	-5	49741
August	-14	-9	-4	-2	-4	-2	-2	-4	-6	-6	-5	-2	4	11	16	20	20	17	9	5	-1	-7	-17	-14	49746
September	-7	-10	-7	-6	-5	-2	0	0	-1	-2	-1	2	6	9	10	9	7	7	5	5	-1	-4	-8	-6	49746
October	-12	-8	-7	-5	-3	0	2	2	2	1	0	3	6	10	11	12	12	10	9	4	-4	-11	-17	-17	49747
November	-15	-13	-9	-7	-4	-3	-1	1	1	2	5	5	8	10	13	10	9	9	7	3	-2	-5	-11	-14	49753
December	-24	-21	-25	-19	-13	-3	2	4	7	9	8	12	15	14	15	16	19	16	14	6	-3	-9	-18	-21	49759
Winter	-13	-11	-11	-8	-6	-3	-1	0	1	2	3	5	7	8	10	10	11	10	8	5	-1	-4	-9	-12	49741
Equinox	-11	-10	-8	-6	-5	-2	0	1	0	-1	0	1	5	9	11	13	12	10	8	4	-2	-9	-11	-11	49739
Summer	-8	-6	-4	-3	-3	-2	-2	-4	-5	-7	-7	-3	2	7	12	14	14	12	8	4	1	-2	-7	-9	49740
Year	-11	-9	-7	-6	-4	-2	-1	-1	-1	-2	-2	1	5	8	11	13	12	11	8	4	-1	-5	-9	-11	49740

## 12.2 Quiet Days

North Component X in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	-1	0	1	2	2	2	2	1	0	-1	0	-1	0	1	-1	-1	-2	-2	-2	0	-1	0	1	1	14889
February	-1	-1	-2	-1	-1	0	1	-1	-4	-6	-5	-2	0	3	3	2	1	0	1	2	3	2	3	2	14891
March	0	0	1	1	3	4	3	-2	-8	-14	-12	-7	-3	2	2	1	2	2	3	3	3	4	3	3	14891
April	4	4	4	5	6	5	1	-9	-20	-27	-28	-20	-9	0	6	5	5	8	10	11	10	11	9	9	14889
May	5	4	5	5	2	-3	-10	-18	-26	-30	-25	-14	-4	4	5	9	11	14	14	13	12	10	11	7	14889
June	4	4	6	5	1	-7	-14	-21	-23	-22	-18	-14	-3	2	5	4	6	10	16	16	14	13	12	11	14894
July	5	6	6	5	2	-2	-7	-13	-21	-25	-24	-17	-7	-1	3	4	6	9	14	15	13	12	10	8	14891
August	5	4	5	4	2	-3	-12	-21	-25	-26	-22	-12	-3	5	7	9	7	10	10	12	12	11	10	9	14887
September	5	4	4	3	2	0	-6	-14	-18	-21	-17	-12	-3	3	4	3	2	7	9	9	8	9	8	8	14889
October	3	4	3	4	5	5	1	-6	-13	-16	-16	-12	-6	-2	1	1	2	3	6	7	6	7	7	5	14888
November	0	0	1	2	3	3	1	-4	-11	-16	-15	-8	0	4	4	5	6	6	6	5	4	3	2	1	14888
December	-3	-4	-3	-1	1	1	1	0	-1	-3	-4	-2	1	3	3	4	3	2	2	1	0	-1	0	-1	14885
Winter	-1	-1	-1	0	1	2	1	-1	-4	-6	-6	-3	0	2	2	2	2	2	2	2	2	1	1	1	14888
Equinox	3	3	3	3	4	4	0	-7	-15	-19	-19	-13	-5	1	3	2	3	5	7	8	7	8	7	6	14889
Summer	5	5	5	5	2	-4	-11	-18	-24	-26	-22	-14	-4	3	5	7	8	11	13	14	13	11	10	9	14890
Year	2	2	3	3	2	1	-3	-9	-14	-17	-16	-10	-3	2	4	4	4	6	7	8	7	7	6	5	14889

East Component Y in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	1	1	0	0	1	1	2	3	2	-1	-4	-5	-5	-4	-4	-3	-3	0	0	3	4	4	3	3	1704
February	4	3	2	3	3	2	3	3	2	-2	-6	-8	-9	-7	-4	-3	-2	0	0	2	3	5	5	3	1706
March	5	3	4	3	4	5	8	11	9	-1	-11	-17	-16	-13	-7	-3	-2	-1	0	0	1	3	7	4	1707
April	5	6	7	9	10	14	18	19	13	2	-12	-23	-26	-21	-13	-6	-3	-2	-2	-1	-1	1	2	2	1710
May	6	8	13	18	21	21	21	17	8	-5	-16	-25	-27	-22	-14	-9	-6	-4	-2	-3	-3	-2	2	3	1714
June	8	12	15	18	21	20	18	14	5	-4	-14	-22	-23	-18	-15	-11	-8	-7	-8	-6	-3	1	3	5	1717
July	5	8	12	16	20	22	23	18	10	0	-10	-19	-22	-19	-15	-10	-8	-7	-7	-5	-5	-4	-3	0	1719
August	3	7	12	18	21	23	22	18	9	-3	-17	-25	-27	-22	-12	-6	-3	-4	-4	-3	-3	-3	-2	-1	1723
September	5	7	9	10	12	13	16	12	5	-5	-15	-19	-20	-14	-8	-4	-5	-4	-2	1	3	3	2	2	1722
October	3	3	3	3	5	6	8	9	8	1	-7	-13	-15	-12	-7	-6	-4	-1	1	2	3	3	3	3	1725
November	2	2	2	2	3	4	6	9	7	0	-7	-12	-11	-7	-4	-2	-2	-1	0	0	1	2	2	3	1730
December	3	1	0	0	0	1	2	3	2	-1	-5	-8	-6	-5	-3	-2	-1	0	1	2	5	4	4	4	1733
Winter	2	1	1	1	2	2	3	5	3	-1	-5	-8	-8	-6	-4	-2	-2	0	0	2	3	4	4	3	1718
Equinox	4	5	6	6	8	9	12	12	9	-1	-10	-17	-19	-15	-9	-5	-3	-2	-1	0	2	2	3	3	1716
Summer	6	9	13	17	21	22	21	17	8	-3	-14	-23	-25	-20	-14	-9	-6	-5	-5	-4	-4	-2	0	2	1718
Year	4	5	7	8	10	11	12	11	7	-2	-10	-16	-17	-14	-9	-5	-4	-3	-2	-1	0	1	2	3	1718

Vertical Component Z in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	-1	-1	-1	0	0	0	0	-2	-3	-3	-3	-2	-1	0	1	2	3	3	3	3	2	1	0	-1	49726
February	1	1	0	0	0	0	0	0	-2	-3	-2	-2	-1	0	1	1	1	2	2	2	1	0	0	0	49726
March	-1	0	0	0	0	1	1	0	-3	-5	-7	-4	-1	1	2	2	2	2	2	2	2	1	-1	-2	49727
April	2	3	3	3	2	3	3	1	-3	-8	-11	-9	-4	-1	2	3	2	2	2	2	1	1	1	0	49731
May	0	2	3	4	4	4	2	-2	-7	-12	-12	-9	-5	-1	1	3	4	5	5	4	3	2	0	1	49735
June	0	2	2	2	2	2	2	-2	-6	-9	-10	-5	-1	1	2	1	2	3	4	3	2	2	1	1	49737
July	2	3	4	2	0	-3	-4	-5	-6	-7	-9	-5	0	1	2	3	4	5	4	3	3	2	1	1	49740
August	-2	1	4	5	4	3	0	-4	-8	-11	-11	-7	0	5	6	6	4	2	1	1	1	0	1	0	49744
September	1	1	1	2	2	3	3	0	-2	-5	-6	-3	-1	0	-1	0	1	1	2	1	1	0	0	0	49746
October	0	0	0	0	0	0	1	0	-2	-5	-5	-4	-2	1	3	2	3	3	2	2	1	0	0	-1	49749
November	0	-1	-1	0	-1	0	0	0	-1	-1	-1	0	2	2	1	0	0	0	0	0	0	0	0	0	49754
December	-3	-2	-1	-1	-1	-1	0	0	-1	-1	0	1	2	1	1	1	1	1	1	1	1	1	0	-1	49762
Winter	-1	-1	-1	0	0	0	0	-1	-2	-2	-2	-1	0	1	1	1	1	2	2	1	1	0	0	-1	49742
Equinox	0	1	1	1	1	2	2	0	-2	-6	-6	-4	-2	0	1	2	2	2	2	1	1	1	0	-1	49738
Summer	0	2	3	3	2	1	0	-3	-7	-10	-10	-6	-2	1	3	3	4	4	3	3	2	2	1	1	49739
Year	0	1	1	1	1	1	0	-1	-3	-6	-6	-4	-1	1	2	2	2	2	2	2	2	1	0	0	49740

## 12.3 Disturbed Days

North Component X in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	-4	4	3	4	7	7	8	3	2	-5	-7	-5	2	0	-4	-3	-4	2	-3	-3	2	3	-6	-5	14883
February	5	4	2	4	10	15	9	4	1	0	-4	-7	-1	-2	1	-11	-15	-1	-1	-6	-2	-8	-1	3	14882
March	-7	-2	3	4	5	10	3	-9	-23	-13	-14	-9	-1	8	5	5	7	-2	2	8	9	0	6	-12	14879
April	14	8	12	7	0	-19	-22	-23	-42	-44	9	5	12	21	19	17	7	17	8	7	-9	-18	11	2	14868
May	3	6	4	2	4	-1	-18	-25	-26	-25	-17	-11	8	12	20	25	12	16	14	9	-2	-5	-3	-2	14885
June	8	5	-2	5	4	-4	-15	-25	-33	-35	-33	-24	-2	7	16	24	32	33	22	16	8	5	-8	-5	14889
July	15	16	6	0	-1	-11	-26	-24	-19	-28	-18	-9	-9	13	20	10	19	17	15	8	3	1	0	2	14887
August	-3	6	14	5	7	5	-11	-9	-14	-23	-21	-5	-2	22	28	26	27	28	14	-5	-11	-28	-33	-18	14880
September	12	-1	4	2	3	4	-4	-16	-17	-22	-24	-4	3	1	11	6	9	8	18	10	4	2	2	6	14879
October	11	11	11	9	22	15	6	-9	-17	-16	-15	-10	-6	-2	5	9	3	4	7	14	-10	-18	-17	-6	14873
November	-2	0	9	7	15	2	-1	4	-3	-12	-21	-7	-5	-6	-5	-7	-6	-3	3	14	6	6	5	7	14871
December	-57	-51	-68	5	-2	12	10	8	12	20	13	14	16	7	8	3	31	23	10	18	10	1	-12	-31	14855
Winter	-15	-11	-13	5	8	9	7	5	3	1	-5	-1	3	0	0	-5	2	5	3	6	4	0	-3	-7	14873
Equinox	8	4	7	6	8	3	-4	-14	-25	-25	-11	-4	2	8	10	9	6	7	8	9	-2	-9	1	-3	14875
Summer	6	8	6	3	4	-3	-18	-21	-23	-28	-22	-13	-1	14	21	21	23	24	16	7	-1	-7	-11	-6	14885
Year	0	0	0	4	6	3	-5	-10	-15	-17	-13	-6	1	7	10	9	10	12	9	7	1	-5	-5	-5	14878

East Component Y in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	13	2	3	-11	-3	-2	-2	-3	-5	-9	-15	-14	-16	-16	-10	-4	-3	18	17	7	15	16	23	-1	1707
February	4	5	2	-2	2	-6	-5	-9	-13	-17	-20	-16	-17	-19	-3	11	2	6	12	13	20	27	20	4	1709
March	6	-3	2	1	-9	2	0	0	-5	-15	-24	-24	-27	-28	-23	-2	22	17	12	9	17	20	30	10	1714
April	0	-9	13	2	4	-6	5	-2	-3	-10	-17	-24	-38	-28	-33	-5	4	22	17	33	27	16	21	11	1713
May	10	13	10	19	22	24	20	8	0	-12	-19	-23	-29	-25	-20	-21	-13	-2	1	8	8	12	0	9	1715
June	17	15	11	22	27	20	18	12	8	-8	-21	-29	-34	-31	-24	-13	-11	-3	1	9	0	4	-1	12	1718
July	10	12	11	20	17	31	29	15	9	-6	-20	-34	-37	-33	-21	-12	-11	-5	1	2	5	9	5	1	1720
August	19	22	5	6	11	17	18	6	-1	-11	-26	-41	-45	-40	-36	-19	-12	13	7	24	24	13	27	18	1726
September	-1	2	5	3	6	13	14	7	-2	-15	-23	-34	-28	-13	-7	1	-4	-1	8	15	28	14	10	0	1728
October	13	6	0	-25	-23	-12	-9	-8	-6	-14	-20	-20	-26	-13	-12	11	19	8	12	30	23	34	19	10	1733
November	22	12	-4	-17	-16	-28	-22	-12	-1	-2	-5	-11	-4	-11	8	5	13	7	20	17	12	8	6	3	1734
December	22	24	-13	-48	-39	-30	-10	-6	-6	-10	-12	-12	-5	-8	-5	-6	13	21	11	34	16	17	28	23	1745
Winter	15	11	-3	-20	-14	-17	-10	-7	-6	-10	-13	-13	-10	-14	-2	1	6	13	15	18	16	17	19	7	1724
Equinox	5	-1	5	-5	-5	-1	2	-1	-3	-12	-20	-25	-30	-21	-20	1	11	12	12	22	23	21	20	8	1722
Summer	14	16	9	17	19	23	21	10	4	-9	-22	-32	-36	-32	-25	-16	-12	1	2	11	10	10	8	10	1720
Year	11	9	4	-3	0	2	5	1	-2	-10	-18	-23	-25	-22	-16	-5	2	8	10	17	16	16	16	8	1722

Vertical Component Z in nT

Month/Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
January	-24	-20	-14	-12	-12	-6	-3	-1	0	1	4	7	9	11	16	19	20	20	10	10	7	-7	-10	-25	49724
February	-14	-13	-10	-9	-8	-9	-9	-6	-6	-5	1	8	9	12	27	30	28	19	10	8	-12	-22	-17	-14	49729
March	-41	-27	-12	-9	-11	2	2	6	6	4	9	12	13	18	33	46	48	29	21	8	-7	-49	-44	-49	49723
April	-28	-42	-51	-49	-41	-36	-23	-9	5	11	42	36	50	47	52	64	45	35	18	-4	-22	-60	-25	-17	49735
May	-21	-15	-12	-6	-5	-5	-5	-6	-5	-5	-4	0	7	19	23	35	29	23	15	6	-16	-11	-16	-26	49736
June	-28	-22	-20	-13	-9	-9	-8	-7	-4	1	-1	7	16	22	32	36	36	31	17	-4	-8	-7	-19	-40	49739
July	-7	-8	-20	-28	-18	-12	-7	-4	-4	-6	0	9	17	25	22	22	18	17	11	6	-2	-9	-15	-15	49740
August	-57	-42	-16	-12	-20	-10	-8	-10	-8	-3	3	8	12	28	48	64	74	57	26	16	-11	-33	-56	-51	49748
September	-13	-42	-27	-24	-24	-10	-1	4	7	7	11	19	29	30	28	28	21	24	12	10	-14	-11	-20	-15	49739
October	-31	-30	-33	-29	-17	-4	3	8	15	17	19	24	30	32	32	37	31	23	19	7	-24	-42	-35	-51	49739
November	-52	-41	-35	-29	-16	-14	-7	-1	3	13	25	19	22	29	42	31	27	24	16	-5	-8	-6	-15	-21	49754
December	-88	-79	-116	-101	-72	-11	9	22	35	45	37	46	57	51	51	60	67	55	48	22	-13	-21	-38	-67	49745
Winter	-45	-38	-44	-38	-27	-10	-2	3	8	14	17	20	24	26	34	35	36	30	21	9	-6	-14	-20	-32	49738
Equinox	-28	-35	-31	-28	-23	-12	-5	2	10	12	21	23	30	31	36	44	37	27	17	5	-17	-42	-32	-34	49734
Summer	-28	-22	-17	-15	-13	-9	-7	-7	-5	-3	-2	4	11	21	32	39	40	32	19	7	-7	-13	-25	-33	49741
Year	-34	-32	-31	-27	-21	-11	-5	0	4	7	12	15	22	26	34	39	38	30	19	7	-10	-23	-25	-33	49738

# 13 Monthly and Annual Means

All days

	Z	H	D	F	X	Y	I
January	49726	14984	6° 32.0'	51934	14886	1705	73° 13.9'
February	49727	14985	6° 32.5'	51936	14888	1707	73° 13.8'
March	49727	14985	6° 33.1'	51936	14887	1710	73° 13.8'
April	49735	14979	6° 33.8'	51942	14881	1712	73° 14.3'
May	49735	14988	6° 34.0'	51945	14889	1714	73° 13.8'
June	49739	14991	6° 34.9'	51949	14893	1718	73° 13.6'
July	49741	14990	6° 35.3'	51950	14891	1720	73° 13.7'
August	49746	14985	6° 36.2'	51953	14885	1723	73° 14.2'
September	49746	14984	6° 36.4'	51954	14885	1724	73° 14.2'
October	49747	14983	6° 37.4'	51955	14883	1728	73° 14.3'
November	49753	14982	6° 38.3'	51960	14882	1732	73° 14.5'
December	49759	14976	6° 39.8'	51964	14875	1738	73° 15.0'
Winter	49741	14982	6° 35.7'	51949	14883	1721	73° 14.3'
Equinox	49739	14983	6° 35.2'	51947	14884	1719	73° 14.2'
Summer	49740	14988	6° 35.1'	51949	14890	1719	73° 13.8'
Year	49740	14984	6° 35.3'	51948	14885	1719	73° 14.1'

5 Quiet days

	Z	H	D	F	X	Y	I
January	49726	14986	6° 31.8'	51935	14889	1704	73° 13.7'
February	49726	14988	6° 32.2'	51936	14891	1706	73° 13.6'
March	49727	14989	6° 32.4'	51937	14891	1707	73° 13.6'
April	49731	14987	6° 33.0'	51940	14889	1710	73° 13.7'
May	49735	14987	6° 34.1'	51944	14889	1714	73° 13.8'
June	49737	14993	6° 34.5'	51948	14894	1717	73° 13.5'
July	49740	14990	6° 35.0'	51949	14891	1719	73° 13.7'
August	49744	14986	6° 36.0'	51953	14887	1723	73° 14.0'
September	49746	14988	6° 35.9'	51955	14889	1722	73° 14.0'
October	49749	14988	6° 36.6'	51957	14888	1725	73° 14.0'
November	49754	14988	6° 37.7'	51962	14888	1730	73° 14.1'
December	49762	14985	6° 38.5'	51969	14885	1733	73° 14.4'
Winter	49742	14987	6° 35.0'	51951	14888	1718	73° 14.0'
Equinox	49738	14988	6° 34.5'	51947	14889	1716	73° 13.8'
Summer	49739	14989	6° 34.9'	51948	14890	1718	73° 13.8'
Year	49740	14988	6° 34.8'	51949	14889	1718	73° 13.9'

5 Disturbed days

	Z	H	D	F	X	Y	I
January	49724	14980	6° 32.7'	51932	14883	1707	73° 14.1'
February	49729	14979	6° 33.1'	51936	14882	1709	73° 14.2'
March	49723	14977	6° 34.3'	51930	14879	1714	73° 14.2'
April	49735	14967	6° 34.4'	51938	14868	1713	73° 15.1'
May	49736	14984	6° 34.4'	51944	14885	1715	73° 14.1'
June	49739	14988	6° 34.9'	51948	14889	1718	73° 13.8'
July	49740	14986	6° 35.5'	51948	14887	1720	73° 14.0'
August	49748	14980	6° 37.1'	51954	14880	1726	73° 14.5'
September	49739	14979	6° 37.4'	51946	14879	1728	73° 14.4'
October	49739	14973	6° 38.9'	51944	14873	1733	73° 14.8'
November	49754	14972	6° 39.0'	51958	14871	1734	73° 15.1'
December	49745	14957	6° 42.0'	51945	14855	1745	73° 15.9'
Winter	49738	14972	6° 36.7'	51943	14873	1724	73° 14.8'
Equinox	49734	14974	6° 36.2'	51939	14875	1722	73° 14.6'
Summer	49741	14984	6° 35.5'	51949	14885	1720	73° 14.1'
Year	49738	14977	6° 36.1'	51944	14878	1722	73° 14.5'

# 14 Hourly Means of All Days as Sequenced in Bartels' 27-day Solar Rotation Number

## 14.1 H-Component

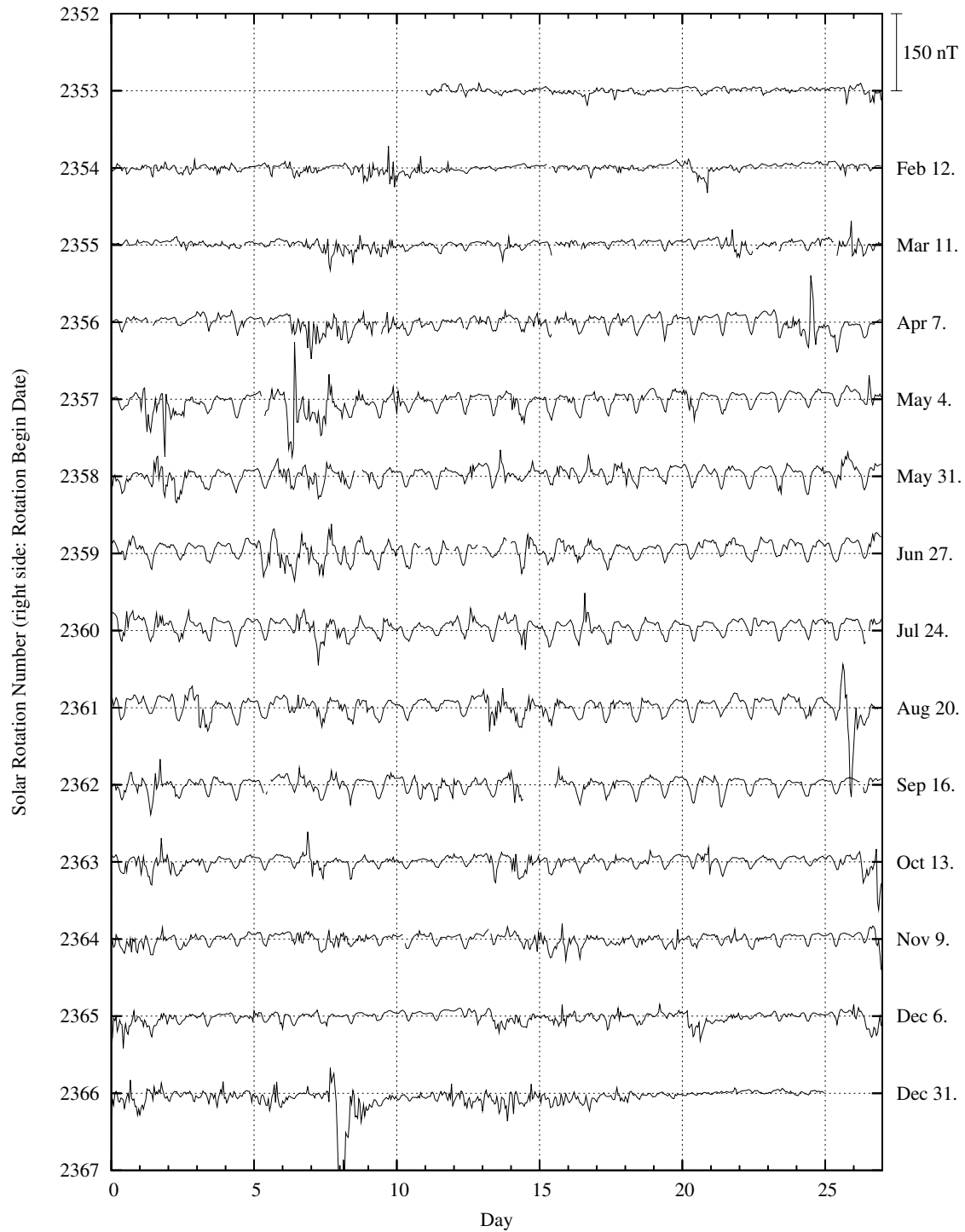


Figure 6: Hourly means of H sequenced in Bartels' solar rotation cycles.

## 14.2 D-Component

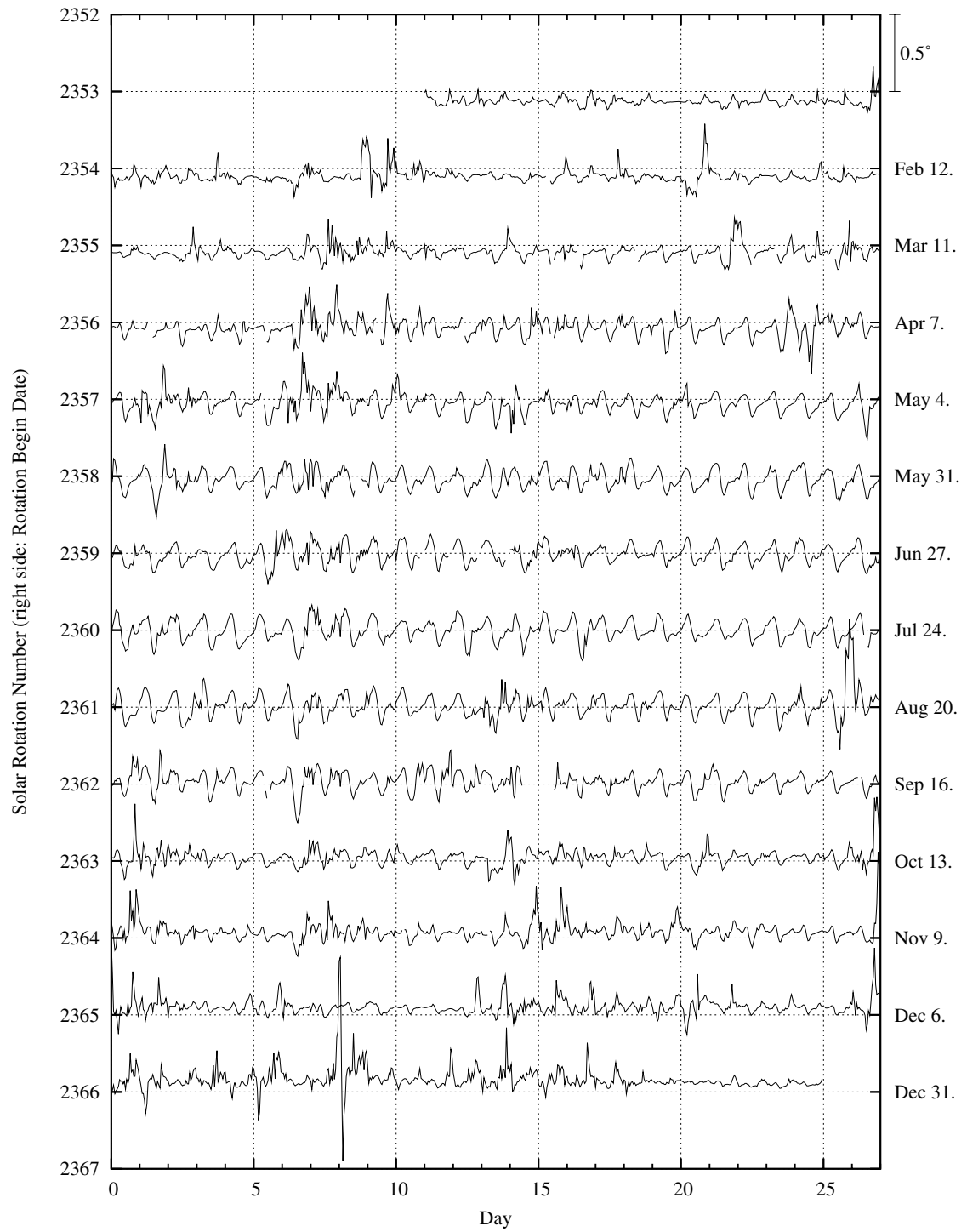


Figure 7: Hourly means of D sequenced in Bartels' solar rotation cycles.

### 14.3 Z-Component

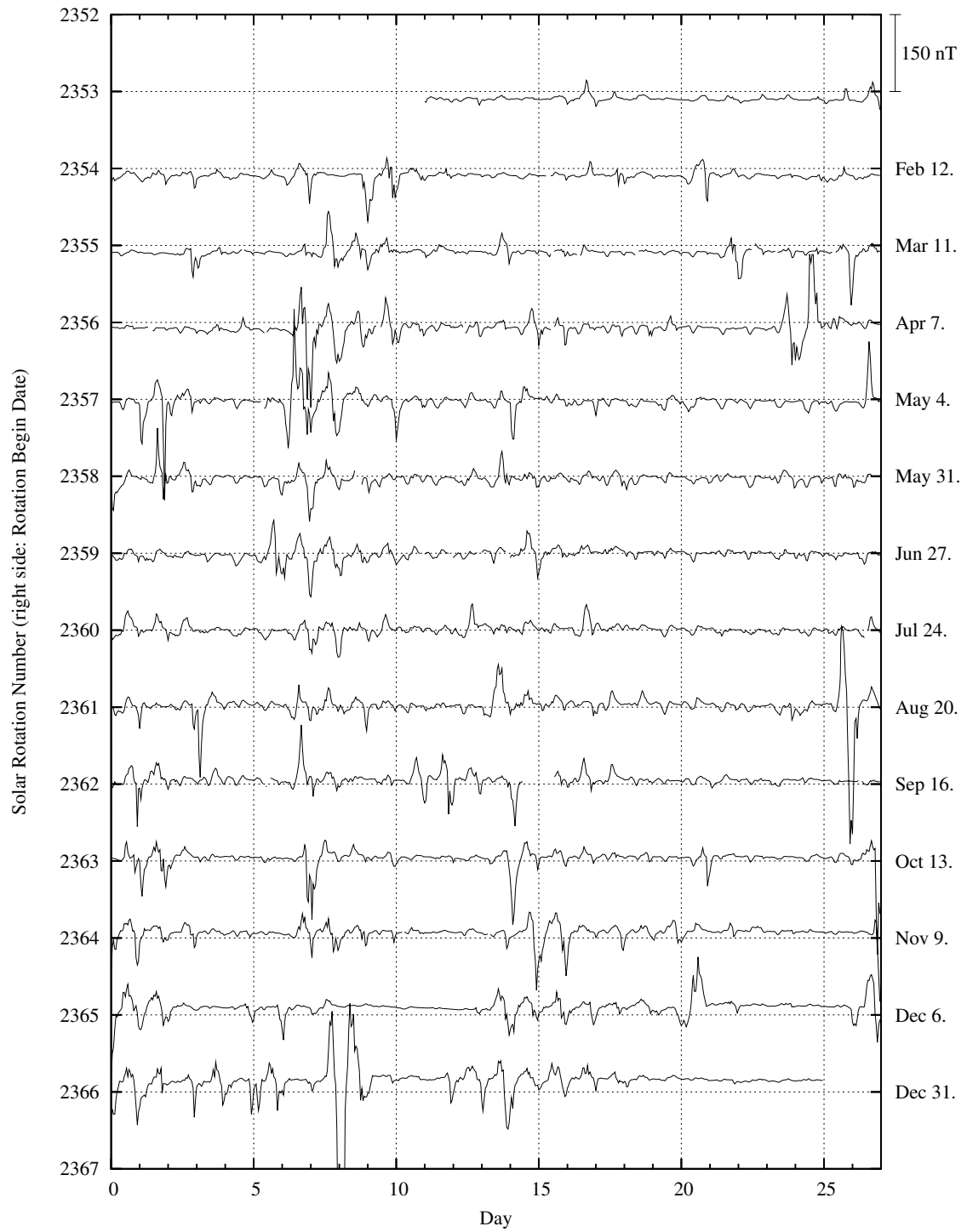


Figure 8: Hourly means of Z sequenced in Bartels' solar rotation cycles.



# 15 K-Indices

## 15.1 Monthly Tables of K-Indices

January											February											March																
Day			K								Ak		Day			K								Ak		Day			K								Ak	
1	2	1	0	1		3	2	1	3	7	1	0	0		1	0	0	3	6	1	3	2	1	2		3	1	0	1	7								
2	1	1	1	2		1	2	2	4	8	2	2	1	1		0	1	2	2	4	2	0	1	1		1	0	0	2	2								
3	2	0	0	0		1	2	2	0	3	3	0	0	1	1		0	1	4	2	5	3	1	0	1	1		1	1	0	2							
4	0	0	0	0		0	0	2	0	1	4	3	2	1	1		1	1	0	1	5	4	1	1	1	1		1	0	0	1	2						
5	0	0	0	1		1	1	2	2	3	5	1	0	1	1		1	0	2	1	3	5	0	0	0	0		0	1	0	2	1						
6	2	1	1	1		2	2	2	2	6	6	2	3	1	1		4	2	4	5	17	6	0	0	0	2		2	2	4	4	9						
7	2	1	1	1		1	2	1	1	4	7	2	0	1	0		1	1	2	2	4	7	3	2	1	1		1	1	3	2	7						
8	0	0	1	1		1	1	0	2	2	8	2	0	0	1		0	0	1	0	2	8	1	1	0	1		2	1	3	3	6						
9	0	0	0	0		0	0	0	0	0	9	0	0	1	1		1	0	2	2	3	9	0	1	0	0		0	2	3	2	4						
10	0	0	0	0		0	0	1	0	0	10	1	0	0	0		0	0	3	3	4	10	1	1	2	3		3	3	3	5	15						
11	0	0	0	1		1	1	2	0	2	11	1	1	1	1		1	3	1	1	5	11	3	2	2	2		1	2	1	2	7						
12	2	0	1	0		0	0	1	1	2	12	2	2	1	1		1	2	0	0	4	12	0	0	2	2		2	1	2	0	4						
13	1	0	0	0		1	2	2	1	3	13	0	0	0	0		0	2	2	1	2	13	0	0	0	1		1	0	1	1	2						
14	0	0	0	1		1	1	3	1	3	14	0	0	0	0		0	0	0	1	0	14	0	0	0	1		1	0	0	1	1						
15	2	1	0	1		0	1	3	2	5	15	0	1	2	2		2	2	3	4	9	15	2	1	2	2		2	3	4	0	9						
16	1	2	2	3		3	4	4	4	16	16	3	3	2	1		1	1	2	2	8	16	1	2	1	2		2	3	2	2	7						
17	2	2	1	1		2	1	2	0	5	17	1	1	1	1		1	1	0	2	3	17	0	0	0	1		1	0	1	1	2						
18	2	2	2	3		1	3	2	3	10	18	0	0	0	1		1	1	1	0	2	18	0	1	3	4		3	5	4	5	23						
19	1	0	1	1		2	2	2	3	6	19	1	1	2	1		2	2	3	2	7	19	6	4	3	3		4	3	5	4	32						
20	2	1	0	1		2	4	4	1	10	20	3	1	2	3		5	5	4	4	24	20	4	2	3	3		3	3	4	3	17						
21	2	2	1	1		1	0	0	0	3	21	3	3	2	3		4	4	3	3	17	21	2	3	2	2		2	4	4	3	14						
22	0	0	1	2		2	2	0	1	3	22	3	3	2	2		3	4	3	2	14	22	2	2	2	2		1	2	3	3	9						
23	1	2	3	3		3	2	3	3	12	23	2	1	1	2		1	0	1	2	4	23	1	1	1	1		1	1	1	2	4						
24	2	2	2	2		2	0	0	0	4	24	3	1	1	2		1	1	0	0	4	24	1	0	1	2		1	2	2	3	6						
25	1	1	1	1		1	2	4	4	10	25	2	1	1	0		0	0	0	0	2	25	2	2	1	1		1	2	3	1	6						
26	4	4	2	3		2	6	5	5	32	26	1	1	1	1		1	2	2	4	7	26	0	1	0	2		2	2	4	3	8						
27	3	2	2	2		2	3	3	3	11	27	2	1	1	1		1	0	1	2	4	27	3	2	0	1		2	3	1	3	8						
28	3	2	1	1		1	1	3	2	7	28						1	1	2	3	4	28	1	2	1	1		1	2	2	2	5						
29	1	0	1	0		0	0	0	1	1												29	1	1	1	2		1	1	2	3	6						
30	1	0	0	0		0	0	1	0	1												30	2	1	0	1		1	0	2	3	5						
31	0	0	0	0		1	2	0	0	1												31	1	0	1	2		2	1	3	1	5						
Mean											5.8		Mean											6.2		Mean											7.6	

April											May											June																
Day			K								Ak		Day			K								Ak		Day			K								Ak	
1	0	0	0	0		1	1	0	1	1	1	0	0	1	1		0	0	0	0	1	1	2	1	1	3		3	3	3	2	10						
2	0	0	0	0		2	0	1	1	2	2	1	0	2	1		1	1	1	1	3	2	2	2	2		2	2	1	1	6							
3	0	0	0	1		2	1	0	1	2	3	1	0	0	0		0	1	2	1	2	3	2	1	2		3	2	1	1	6							
4	0	0	2	2		2	3	4	3	10	4	0	2	2	2		5	3	3	2	13	4	1	1	1	1		1	1	1	0	3						
5	3	3	2	3		7	5	4	2	34	5	3	2	2	2		2	2	0	1	7	5	0	1	1	1		1	2	1	1	3						
6	1	2	2	2		2	2	2	2	7	6	1	2	1	2		4	4	4	4	16	6	2	1	3	5		4	3	5	4	24						
7	1	0	1	1		1	1	0	1	2	7	2	2	4	4		3	2	2	2	13	7	4	3	3	4		4	3	3	5	24						
8	1	0	0	2		1	1	2	2	4	8	2	2	2	2		1	1	1	1	5	8	3	2	3	4		4	4	3	3	19						
9	5	4	4	3		5	3	6	7	50	9	1	1	1	2		1	2	1	1	4	9	3	2	2	3		2	3	3	2	11						
10	3	3	2	2		3	3	3	2	12	10	0	0	0	1		1	1	2	3	4	10	2	2	2	2		3	3	3	2	10						
11	2	1	1	1		2	1	0	1	4	11	3	3	3	3		4	3	4	4	20	11	2	1	1	2		2	2	1		5						
12	0	0	0	1		0	1	1	0	1	12	4	3	3	2		3	2	2	2	12	12	1	0	1	2		2	2	1		4						
13	1	1	3	3		4	2	3	1	2	13	3	3	1	2						9	13	2	0	0	1		2	1	1		3						
14	3	5	4	7		4	5	4	4	45	14	3	2	2	2		2	1	1	1	7	14	1	0	0	2		2	2	3		6						
15	4	3	4	4		3	5	4	4	27	15	0	1	0	1		1	1	1	2	3	15	2	3	3	3		4	4	3	3	17						
16	3	2	2	2		3	3	3	2	11	16	1	0	0	1		1	1	0	0	2	16	2	2	2	2		2	2	3	2	8						
17	2	1	1	1		1	1	2	4	7	17	2	2	0	1		3	3	1	1	7	17	2	3	3	2		3	3	2	0	10						
18	5	3	1	1		1	1	2	2	11	18	1	2	3	3		2	5	3	2	15	18	0	1	3	3		2	1	1	1	6						
19	2	0	0	0		1	1	1	0	2	19	1	2	2	1		2	2	3	2	7	19	2	1	1	0		1	0	0	0	2						
20	0	0	0	3		4	2	1	0	7	20	2	1	1	2		2	2	2	1	6	20	2	1	1	2		2	2	1	0	5						
21	0	0	1	2		3	4	1	1	7	21	3	1	1	2		1	3	3	1	8	21	0	0	0	0		1	1	1	1	2						
22	4	4	3	4		3	2	2	1	16	22	2	1	2	2		3	3	2	4	11	22	1	1	1	2		2	2	2	1	5						
23	1	2	2	2		2	2	1	2	6	23	3	2	2	2		2	1	0	1	6	23	0	0	0	0		1	1	1	0	1						
24	3	2	1	2		1	0	0	3	6	24	0	1	1	2		3	2	0	0	4	24	0	0	0	1		2	2	1	1	3						
25	3	1	0	1		2	2	1	0	5	25	1	2	2	2		1	1	2	2	6	25	2	1	1	2		2	2	1	2	6						
26	1	1	0	1		2	1	0	0	2	26	1	1	1	1		2	2	2	1	5	26	1	0	0	1		1	1</									

July

Day	K								Ak
1	1	2	1	1	2	0	1	0	3
2	0	0	1	1	1	1	1	1	2
3	0	1	0	1	1	1	2	1	3
4	1	1	1	3	5	3	3	4	16
5	3	3	4	3	3	2	3	3	16
6	3	2	2	2	3	2	2	1	9
7	2	1	2	2	3	3	2	1	8
8	0	0	1	1	1	1	1	0	2
9	0	1	0	0	1	1	1	3	3
10	2	2	1	3	4	3	3	1	12
11	0	0	0	2	3	3	3	3	8
12	2	2	2	4	4	2	1	1	11
13	2	2	2	2	2	0	0	1	5
14	1	1	1	3	5	5	3	3	19
15	1	1	1	2	3	1	1	1	5
16	1	1	0	0	1	1	1	0	2
17	1	1	1	2	1	1	2	0	4
18	1	1	0	1	1	2	1	0	3
19	0	1	0	0	0	0	0	1	1
20	1	1	0	1	2	1	0	1	3
21	1	0	0	1	0	0	1	0	1
22	1	2	1	1	1	1	0	1	3
23	1	1	1	2	1	1	1	1	4
24	1	1	2	3	3	3	1	2	9
25	2	2	2	1	2	2	1	3	7
26	3	1	1	1	2	2	0	0	5
27	1	1	1	1	3	3	3	3	9
28	5	4	3	3	3	2	1	1	17
29	2	1	1	1	1	1	1	1	4
30	1	2	1	1	1	1	0	1	3
31	1	2	3	5	4	3	3	3	18
Mean									6.9

August

Day	K								Ak
1	3	3	3	3	3	3	1	2	13
2	2	2	2	3	3	2	1	3	10
3	2	2	1	1	1	1	1	2	5
4	0	0	0	1	0	0	1	0	1
5	2	1	1	1	1	1	1	0	3
6	0	0	2	1	1	2	1	1	3
7	3	3	4	5	5	5	4	3	30
8	3	2	2	3	3	3	2	1	11
9	2	3	1	3	3	2	1	2	9
10	1	0	0	1	1	1	1	3	4
11	2	1	1	2	3	2	1	1	6
12	2	2	1	2	2	3	2	1	7
13	0	0	1	1	1	1	1	1	2
14	1	0	0	1	2	1	1	0	2
15	0	0	1	1	0	2	1	2	3
16	1	1	0	1	2	1	1	1	3
17	0	1	3	2	3	2	2	3	9
18	2	3	2	3	3	3	2	2	11
19	1	1	1	3	5	5	6	7	43
20	5	5	2	2	3	3	2	2	19
21	2	2	1	1	2	3	3	4	11
22	4	2	3	3	4	5	4	2	22
23	2	2	2	1	1	1	1	1	5
24	2	0	1	1	2	3	1	2	6
25	0	0	0	1	0	0	1	0	1
26	1	0	0	0	1	1	1	1	2
27	2	2	2	3	5	4	3	3	18
28	3	2	2	2	2	3	3	3	11
29	3	1	2	3	2	2	2	0	8
30	1	1	2	2	2	2	3	2	7
31	1	0	2	1	2	3	3	3	8
Mean									9.5

September

Day	K								Ak
1	3	1	2	3	3	3	4	5	18
2	3	1	1	2	2	2	3	3	9
3	2	2	1	2	2	2	2	2	7
4	4	4	3						23
5						4	3	2	16
6	2	1	1	2	3	2	3	1	8
7	2	1	2	2	3	2	2	0	7
8	1	1	1	1	2	1	1	2	4
9	1	0	1	0	0	0	0	0	1
10	1	1	1	0	1	3	2	1	5
11	2	2	2	2	2	1	0	0	5
12	1	0	2	2	1	1	2	1	4
13	0	2	2	2	2	0	1	0	4
14	1	1	1	1	2	1	1	1	4
15	0	0	0	0	0	0	1	0	0
16	0	0		1	2	2	2	0	3
17	1	1	1	4	3	2	5	4	17
18	4	3	3	3	3	4	4	4	21
19	3	2	3	3	3	3	2	1	12
20	2	2	1	1	0	1	2	0	4
21	0	0	0	1	1	1	1	1	2
22	0	0	0	1	1	1	2	1	2
23	1	0	0	1	2	2	3	5	10
24	4	3	3	4	3	2	3	3	17
25	2	1	1	3	2	1	1	3	7
26	1	1	2	1	2	2	2	3	7
27	2	1	0	1	1	1	1	0	3
28	1	0	0	1	1	0	1	2	2
29	2	0	0	0	2	2	2	0	4
30	0	3	3	4	2	3	2	3	13
Mean									8.0

October

Day	K								Ak
1	5	4	3	3	3	4	2	2	20
2	1	1	1	1	2	2	2	3	7
3	1	1	2	2	3	3	1	2	8
4	1	1	1	1	1	3	2	0	5
5	1	0	1	1	1	1	1	2	4
6	0	0	1	1	0	0	0	1	1
7	0	1	1	0	2	3	3	4	9
8	3	1	1	2	2	2	2	2	7
9	0	1	1	1	1	0	2	2	3
10	1	0	1	1	0	0	0	1	2
11	1	0	0	1	1	1	1	0	2
12	1	0	1	2	2	2	1	2	5
13	2	2	3	3	3	3	6	6	29
14	4	3	2	3	2	5	4	5	24
15	2	3	2	2	2	3	4	3	13
16	2	1	1	1	2	1	2	3	6
17	1	1	0	1	1	1	1	1	3
18	1	1	1	0	0	0	2	1	2
19	0	0	0	2	1	1	0	0	2
20	1	1	2	3	3	3	2	3	10
21	3	3	3	2	3	5	4	3	20
22	2	3	2	2	2	3	4	3	13
23	1	0	0	1	1	1	1	2	3
24	0	0	1	1	1	1	2	2	3
25	1	1	1	1	1	1	0	0	2
26	0	1	1	1	2	1	0	0	2
27	1	0		1	0	0	3	3	5
28	1	1	2	2	2	3	4	4	12
29	4	3	2	2	3	4	4	5	22
30	4	2	3	3	2	3	2	1	12
31	2	0	1	1	1	2	2	3	6
Mean									8.5

November

Day	K								Ak
1	1	1	1	1	3	2	2	2	6
2	2	1	0	1	2	3	4	3	10
3	2	1	1	2	3	1	2	1	6
4	1	2	1	2	1	2	2	2	6
5	0	1	2	2	1	2	2	1	5
6	0	0	1	0	0	0	1	2	2
7	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	1	0	0
9	1	0	0	0	1	3	3	5	11
10	5	4	3	4	4	2	5	3	27
11	3	3	3	3	3	5	3	3	19
12	3	2	2	2	2	0	1	1	6
13	1	1	1	0	0	0	0	0	1
14	0	1	1	1	1	2	2	3	5
15	3	2	0	1	1	1	3	3	8
16	3	2	2	0	1	1	0	0	4
17	2	1	0	0	2	1	1	1	3
18	0	0	0	0	0	1	0	1	1
19	1	1	1	2	0	0	0	1	2
20	0	0	0	0	1	0	0	0	0
21	0	0	0	0	1	0	0	0	0
22	0	0	0	3	2	1	3	3	7
23	1	1	2	2	3	4	4	4	15
24	3	3	3	2	3	2	3	2	12
25	2	2	2	2	3	5	5	3	19
26	3	2	2	2	2	2	4	3	12
27	2	2	2	2	1	3	3	1	8
28	1	1	0	1	2	2	2	3	6
29	2	3	1	1	0	1	2	2	6
30	3	3	3	3	5	4	3	2	20
Mean									7.6

December

Day	K						Ak		
1	1	0	1	1	1	2	4	2	7
2	1	0	0	0	1	0	1	2	2
3	1	1	1	0	0	1	2	2	3
4	0	0	0	0	0	0	1	1	1
5	0	0	0	3	0	1	1	2	4
6	3	3	3	3	4	3	5	4	22
7	4	3	3	3	3	5	3	4	22
8	3	4	4	3	3	3	5	2	21
9	1	2	1	0	0	3	3	3	7
10	2	2	2	2	4	5	3	4	18
11	3	3	3	2	2	1	2	4	12
12	3	4	3	2	4	5	4	3	23
13	2	2	1	1	0	1	1	3	5
14	3	2	2	2	5	5	6	7	44
15	8	7	6	5	6	4	5	4	86
16	3	2	1	2	1	2	3	3	9
17	2	1	1	1	1	1	3	1	5
18	1	1	0	2	2	3	3	4	10
19	3	2	2	3	3	3	3	2	12
20	4	3	2	2	3	4	5	5	24
21	4	3	3	3	3	4	3	2	17
22	3	2	3	3	3	3	3	3	14
23	2	2	3	2	3	4	4	2	14
24	2	1	2	2	3	3	4	2	11
25	3	2	2	2	2	3	1	1	8
26	1	1	1	1	2	2	1	0	4
27	0	0	0	0	0	0	0	1	0
28	0	0	0	0	0	1	3	2	3
29	1	0	0	0	1	1	1	0	2
30	1	0	0	1	1	1	2	1	3
31	0	0	0	0	0	0	1	1	1
Mean									13.4

## 15.2 K-Indices Sequenced in Bartel's Solar Rotation Number

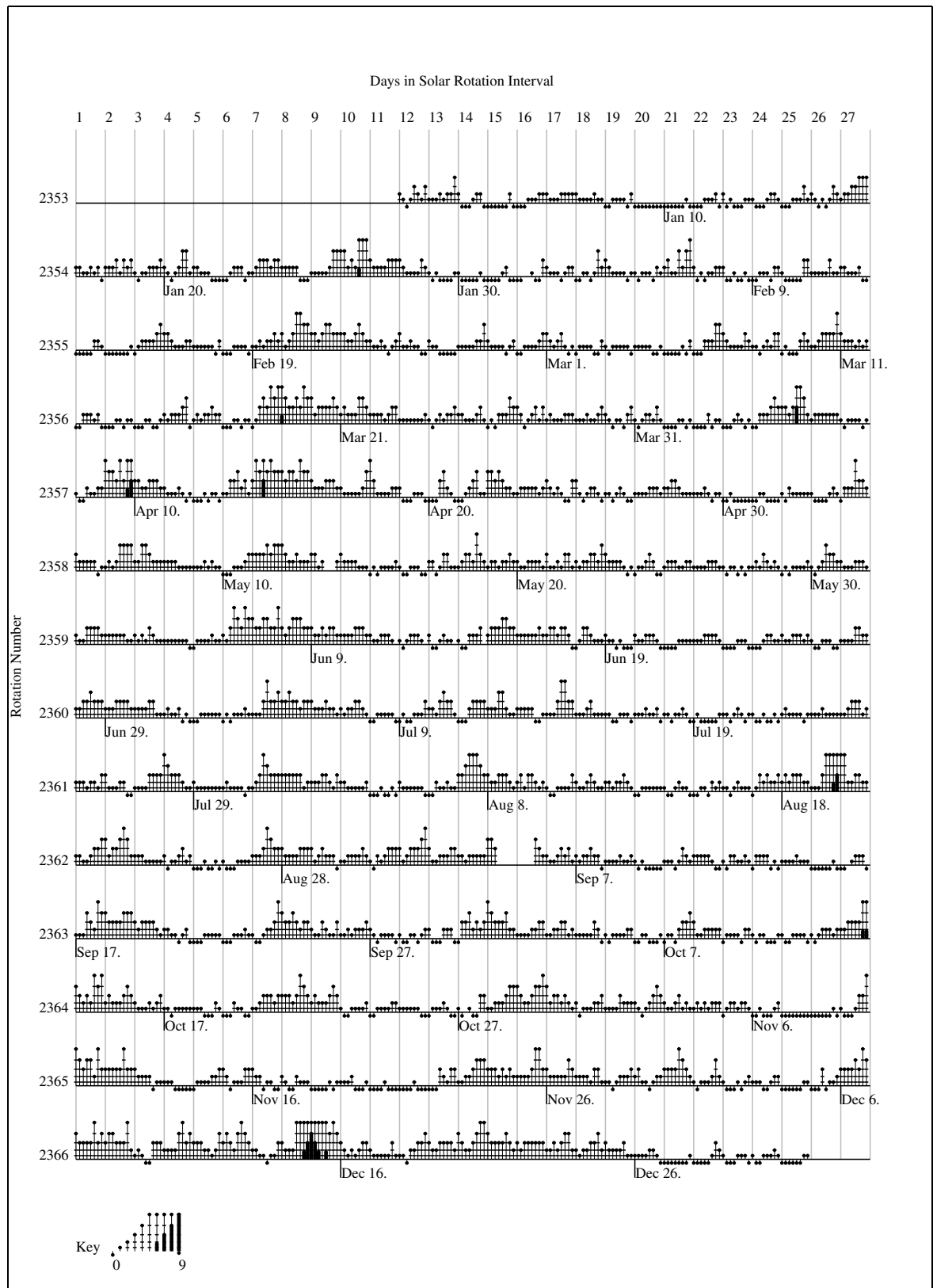


Figure 9: K-indices sequenced in Bartel's solar rotation number

### 15.3 Ak-Indices

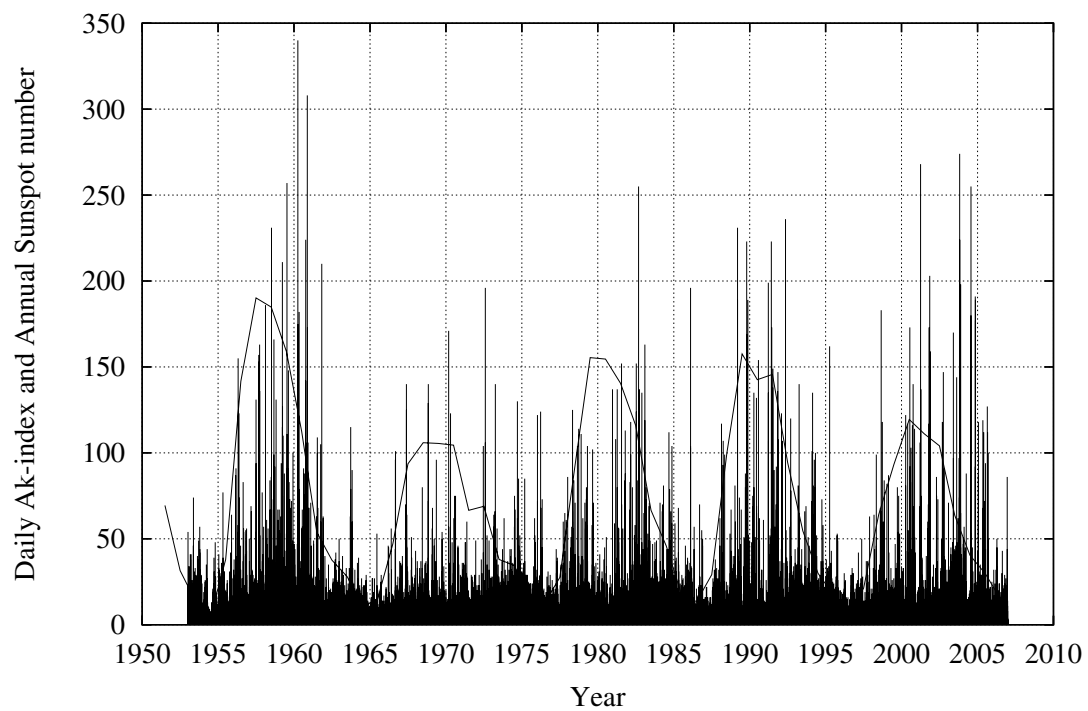


Figure 10: Daily Ak-indices (vertical lines) and sunspots (solid line)

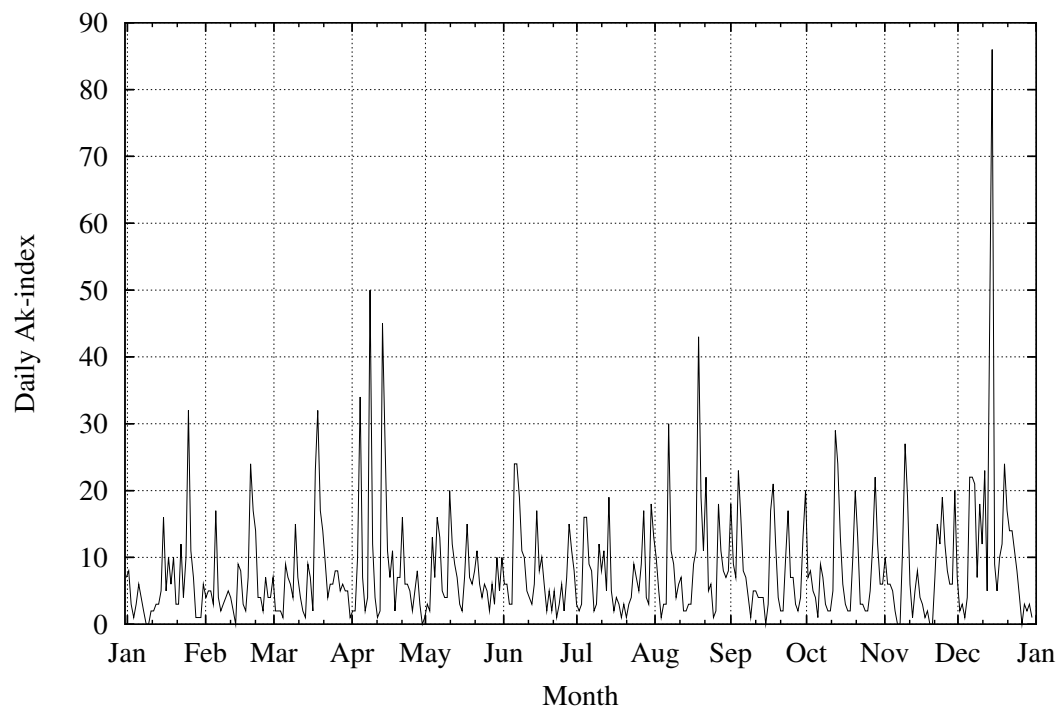


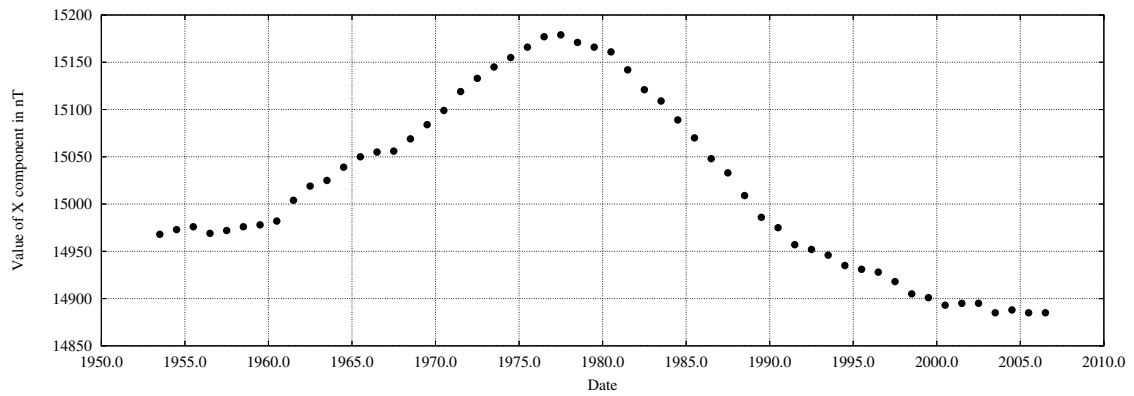
Figure 11: Daily Ak-indices

## 15.4 Table of Annual Ak-indices

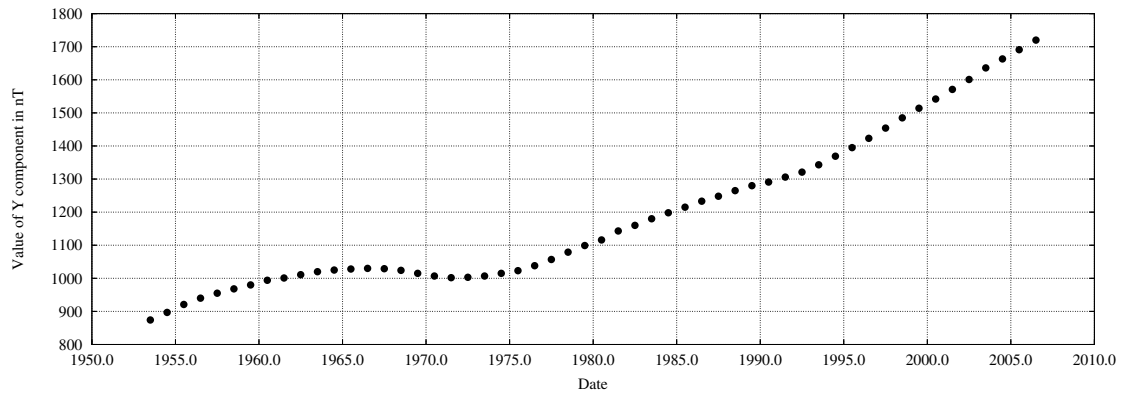
m/M denotes sunspot minimum/maximum

Year	Ak	Year	Ak
1953	11	1980	9
1954m	8	1981	13
1955	9	1982	19
1956	14	1983	15
1957M	16	1984	14
1958	18	1985	10
1959	21	1986m	10
1960	22	1987	8
1961	12	1988	11
1962	10	1989M	16
1963	10	1990	13
1964m	8	1991	21
1965	6	1992	15
1966	8	1993	13
1967	10	1994	16
1968M	11	1995	11
1969	10	1996m	9
1970	10	1997	8
1971	9	1998	12
1972	10	1999	12
1973	13	2000M	15
1974	15	2001	14
1975	11	2002	13
1976m	10	2003	22
1977	9	2004	14
1978	13	2005	14
1979M	12	2006	8

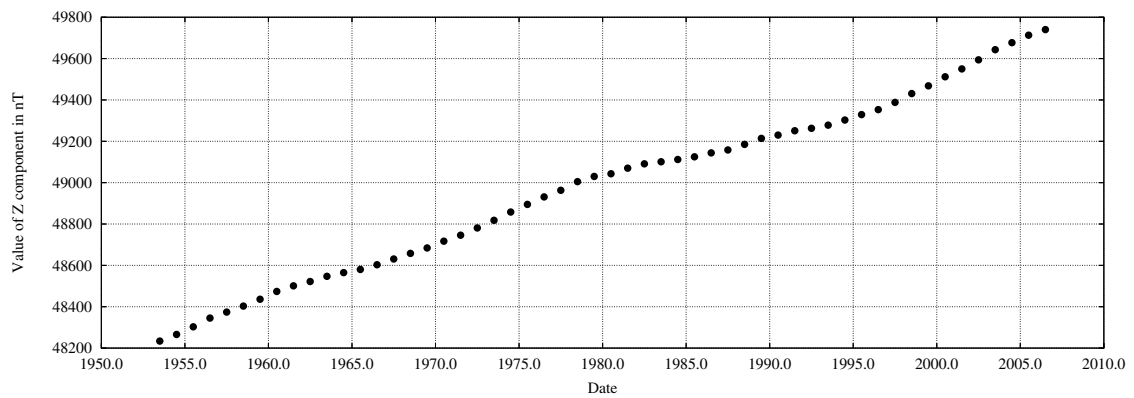
## 16 Annual Means



(a) Annual means for X component

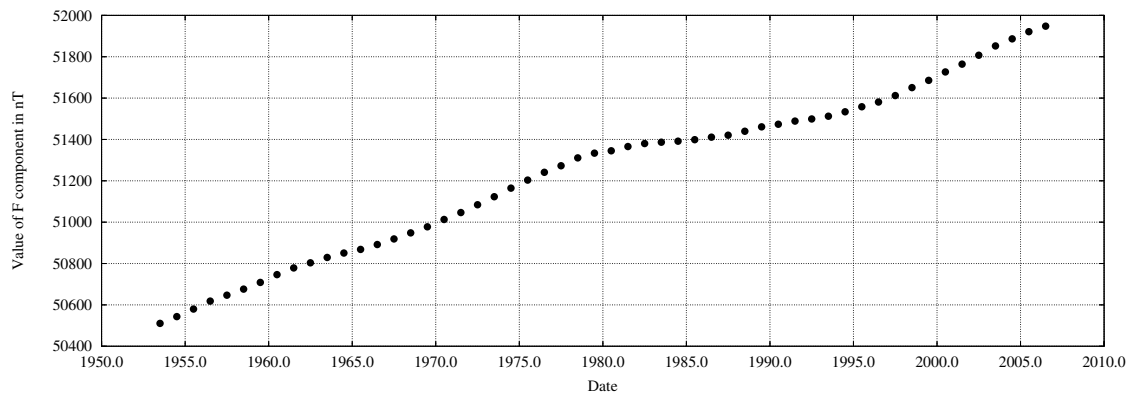


(b) Annual means for Y component

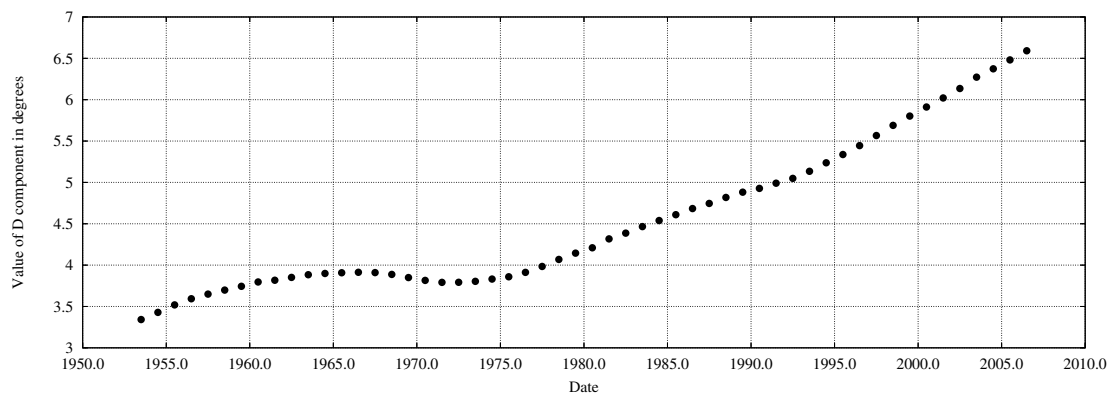


(c) Annual means for Z component

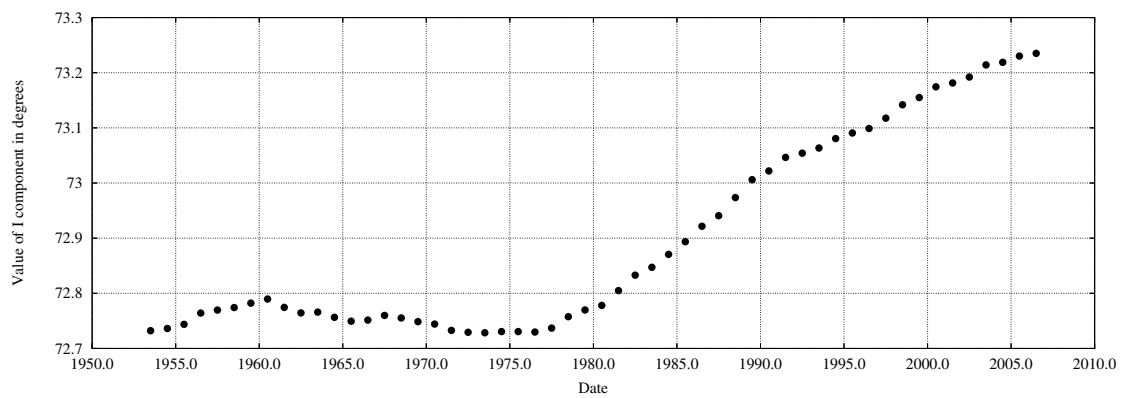
Figure 12: Figures of annual means of X, Y, and Z



(a) Annual means for F component



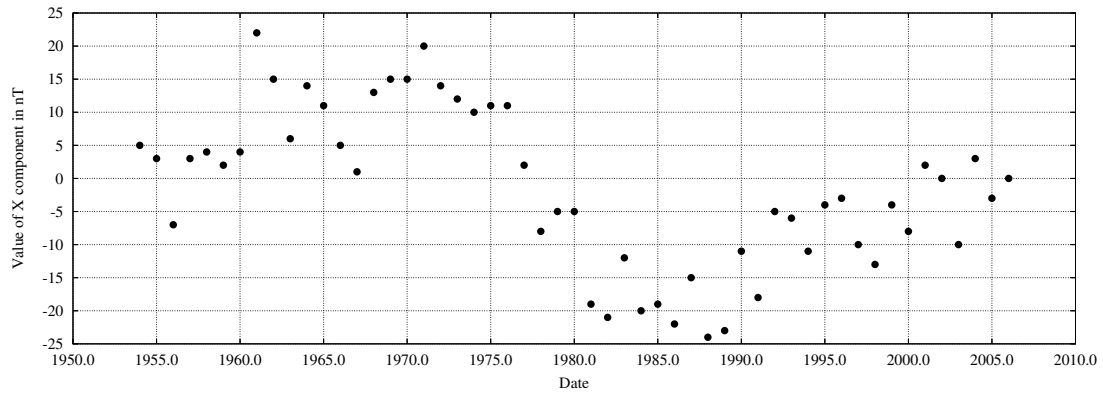
(b) Annual means for D component



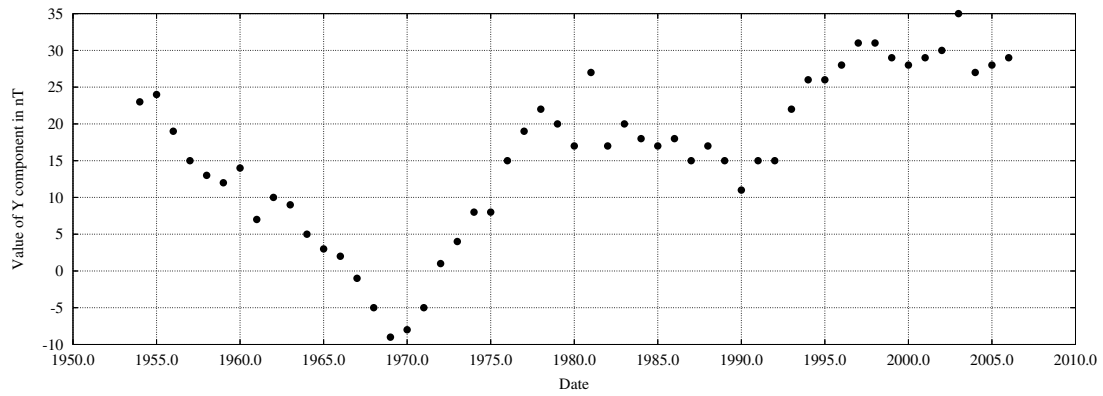
(c) Annual means for I component

Figure 13: Figures of annual means of F, D, and I

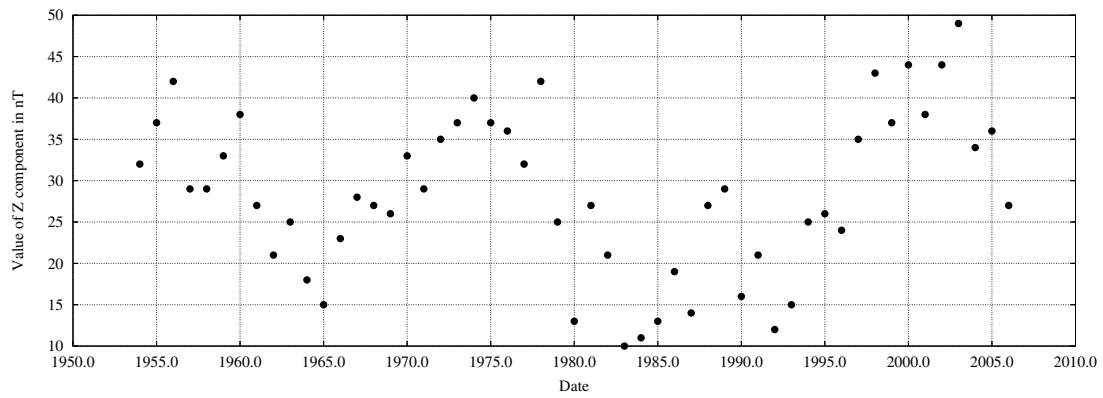
# 17 Secular Variation



(a) Annual change of X component



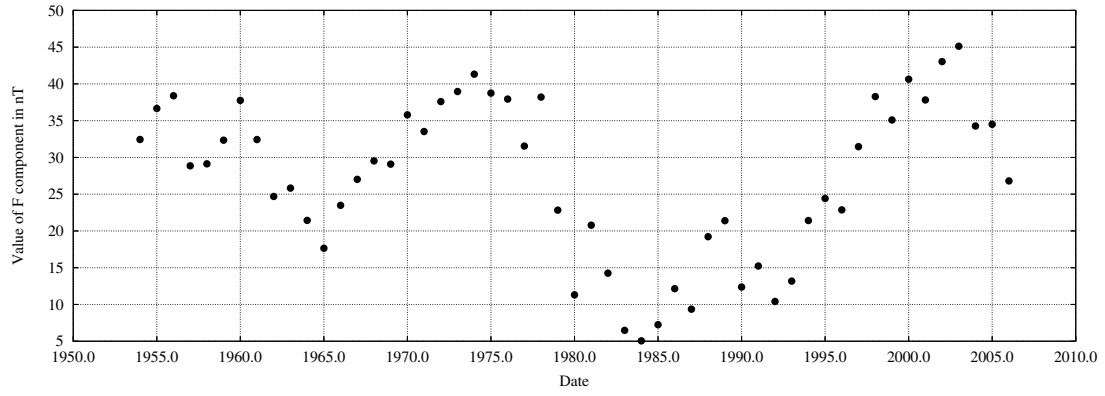
(b) Annual change of Y component



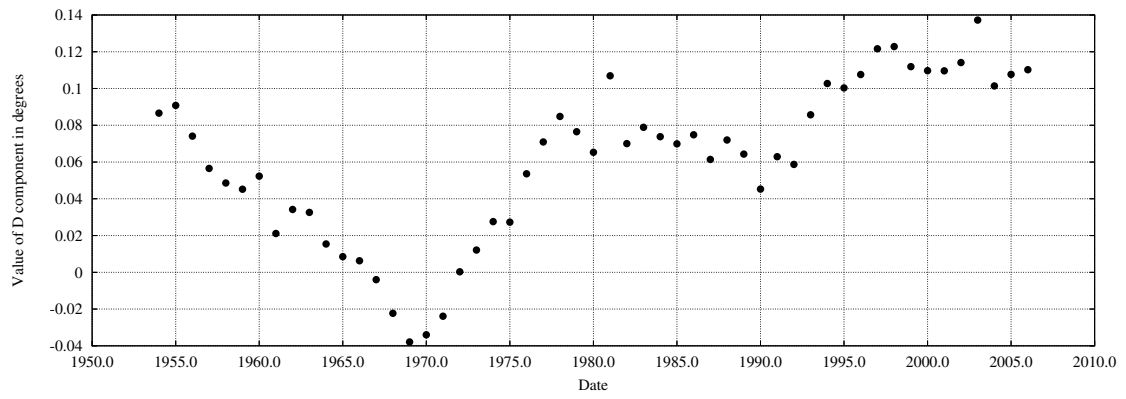
(c) Annual change of Z component

Figure 14: Annual change of components X, Y, and X

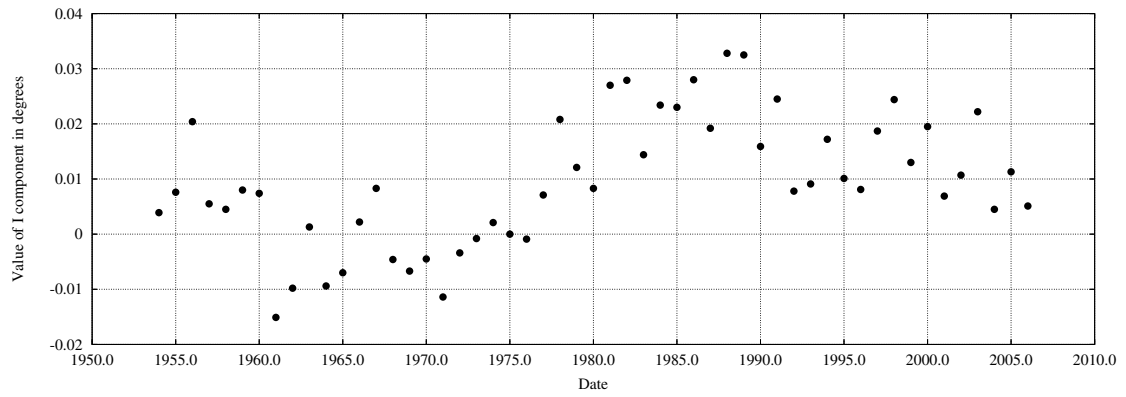




(a) Annual change of F component



(b) Annual change of D component



(c) Annual change of I component

Figure 15: Annual change of components F, D, and I

## 18 Tables of Annual Means

### 18.1 All Days

Year	X	Y	Z	D	H	F	I
1953	14968	874	48234	3° 20.5'	14993	50511	72° 43.9'
1954	14973	897	48266	3° 25.7'	15000	50543	72° 44.2'
1955	14976	921	48303	3° 31.1'	15004	50580	72° 44.6'
1956	14969	940	48345	3° 35.6'	14998	50618	72° 45.8'
1957	14972	955	48374	3° 39.0'	15002	50647	72° 46.2'
1958	14976	968	48403	3° 41.9'	15007	50676	72° 46.4'
1959	14978	980	48436	3° 44.6'	15010	50708	72° 46.9'
1960	14982	994	48474	3° 47.7'	15015	50746	72° 47.4'
1961	15004	1001	48501	3° 49.0'	15037	50779	72° 46.5'
1962	15019	1011	48522	3° 51.1'	15053	50803	72° 45.9'
1963	15025	1020	48547	3° 53.0'	15060	50829	72° 45.9'
1964	15039	1025	48565	3° 53.9'	15074	50851	72° 45.4'
1965	15050	1028	48580	3° 54.5'	15085	50868	72° 45.0'
1966	15055	1030	48603	3° 54.8'	15090	50892	72° 45.1'
1967	15056	1029	48631	3° 54.6'	15091	50919	72° 45.6'
1968	15069	1024	48658	3° 53.3'	15104	50948	72° 45.3'
1969	15084	1015	48684	3° 51.0'	15118	50977	72° 44.9'
1970	15099	1007	48717	3° 48.9'	15133	51013	72° 44.6'
1971	15119	1002	48746	3° 47.5'	15152	51047	72° 44.0'
1972	15133	1003	48781	3° 47.5'	15166	51084	72° 43.8'
1973	15145	1007	48818	3° 48.2'	15178	51123	72° 43.7'
1974	15155	1015	48858	3° 49.9'	15189	51165	72° 43.8'
1975	15166	1023	48895	3° 51.5'	15200	51203	72° 43.8'
1976	15177	1038	48931	3° 54.8'	15212	51241	72° 43.8'
1977	15179	1057	48963	3° 59.0'	15216	51273	72° 44.2'
1978	15171	1079	49005	4° 04.1'	15209	51311	72° 45.5'
1979	15166	1099	49030	4° 08.7'	15206	51334	72° 46.2'
1980	15161	1116	49043	4° 12.6'	15202	51345	72° 46.7'
1981	15142	1143	49070	4° 19.0'	15185	51366	72° 48.3'
1982	15121	1160	49091	4° 23.2'	15165	51380	72° 50.0'
1983	15109	1180	49101	4° 27.9'	15155	51387	72° 50.8'
1984	15089	1198	49112	4° 32.4'	15136	51392	72° 52.2'
1985	15070	1215	49125	4° 36.6'	15119	51399	72° 53.6'
1986	15048	1233	49144	4° 41.1'	15098	51411	72° 55.3'
1987	15033	1248	49158	4° 44.7'	15085	51420	72° 56.4'
1988	15009	1265	49185	4° 49.1'	15062	51440	72° 58.4'
1989	14986	1280	49214	4° 52.9'	15041	51461	73° 00.4'
1990	14975	1291	49230	4° 55.6'	15031	51473	73° 01.3'
1991	14957	1306	49251	4° 59.4'	15014	51489	73° 02.8'
1992	14952	1321	49263	5° 02.9'	15010	51499	73° 03.3'
1993	14946	1343	49278	5° 08.1'	15006	51512	73° 03.8'
1994	14935	1369	49303	5° 14.2'	14998	51534	73° 04.8'
1995	14931	1395	49329	5° 20.3'	14996	51558	73° 05.4'
1996	14928	1423	49353	5° 26.7'	14996	51581	73° 05.9'
1997	14918	1454	49388	5° 34.0'	14989	51612	73° 07.1'
1998	14905	1485	49431	5° 41.4'	14979	51651	73° 08.5'
1999	14901	1514	49468	5° 48.1'	14978	51686	73° 09.3'
2000	14893	1542	49512	5° 54.7'	14973	51726	73° 10.5'
2001	14895	1571	49550	6° 01.2'	14978	51764	73° 10.9'
2002	14895	1601	49594	6° 08.1'	14981	51807	73° 11.5'
2003	14885	1636	49643	6° 16.3'	14975	51852	73° 12.9'
2004	14888	1663	49677	6° 22.4'	14981	51887	73° 13.1'
2005	14885	1691	49713	6° 28.9'	14981	51921	73° 13.8'
2006	14885	1720	49740	6° 35.5'	14984	51948	73° 14.1'

## 18.2 Quiet Days

Year	X	Y	Z	D	H	F	I
1953	14975	872	48235	3° 20.0'	15000	50514	72° 43.5'
1954	14977	895	48266	3° 25.2'	15004	50544	72° 43.9'
1955	14980	919	48302	3° 30.6'	15008	50580	72° 44.4'
1956	14978	936	48343	3° 34.6'	15007	50619	72° 45.2'
1957	14978	951	48372	3° 38.0'	15008	50647	72° 45.8'
1958	14984	965	48400	3° 41.1'	15015	50676	72° 45.9'
1959	14986	976	48433	3° 43.6'	15018	50708	72° 46.4'
1960	14993	989	48474	3° 46.4'	15026	50749	72° 46.7'
1961	15010	998	48501	3° 48.2'	15043	50780	72° 46.1'
1962	15022	1009	48523	3° 50.6'	15056	50805	72° 45.7'
1963	15032	1018	48547	3° 52.5'	15066	50831	72° 45.5'
1964	15042	1024	48566	3° 53.7'	15077	50852	72° 45.2'
1965	15051	1027	48581	3° 54.2'	15086	50869	72° 44.9'
1966	15059	1028	48602	3° 54.3'	15094	50892	72° 44.8'
1967	15062	1028	48630	3° 54.3'	15097	50920	72° 45.2'
1968	15073	1022	48657	3° 52.7'	15108	50948	72° 45.1'
1969	15089	1013	48684	3° 50.4'	15123	50979	72° 44.6'
1970	15104	1005	48715	3° 48.4'	15137	51013	72° 44.3'
1971	15124	1001	48746	3° 47.2'	15157	51048	72° 43.6'
1972	15139	1001	48780	3° 47.0'	15172	51085	72° 43.4'
1973	15151	1004	48819	3° 47.5'	15184	51126	72° 43.4'
1974	15162	1012	48859	3° 49.1'	15196	51167	72° 43.4'
1975	15171	1020	48896	3° 50.8'	15205	51206	72° 43.5'
1976	15182	1035	48930	3° 54.0'	15217	51242	72° 43.5'
1977	15184	1054	48963	3° 58.2'	15221	51274	72° 43.9'
1978	15178	1075	49003	4° 03.1'	15216	51311	72° 45.0'
1979	15171	1096	49028	4° 07.9'	15211	51333	72° 45.8'
1980	15163	1115	49042	4° 12.3'	15204	51345	72° 46.5'
1981	15148	1140	49067	4° 18.2'	15191	51365	72° 47.9'
1982	15128	1157	49090	4° 22.4'	15172	51381	72° 49.5'
1983	15115	1176	49101	4° 26.9'	15161	51388	72° 50.5'
1984	15095	1195	49113	4° 31.6'	15142	51394	72° 51.9'
1985	15076	1212	49125	4° 35.8'	15125	51401	72° 53.2'
1986	15055	1230	49144	4° 40.2'	15105	51413	72° 54.9'
1987	15037	1246	49158	4° 44.2'	15089	51422	72° 56.2'
1988	15014	1262	49182	4° 48.3'	15067	51438	72° 58.1'
1989	14995	1276	49213	4° 51.8'	15049	51463	72° 59.8'
1990	14982	1288	49227	4° 54.8'	15037	51472	73° 00.8'
1991	14965	1302	49248	4° 58.3'	15022	51488	73° 02.2'
1992	14959	1318	49261	5° 02.1'	15017	51499	73° 02.8'
1993	14952	1341	49277	5° 07.5'	15012	51513	73° 03.4'
1994	14944	1365	49304	5° 13.1'	15006	51537	73° 04.3'
1995	14937	1392	49328	5° 19.4'	15002	51559	73° 05.1'
1996	14934	1421	49353	5° 26.1'	15001	51583	73° 05.6'
1997	14923	1452	49388	5° 33.4'	14993	51614	73° 06.7'
1998	14910	1484	49431	5° 41.0'	14984	51652	73° 08.2'
1999	14905	1512	49467	5° 47.5'	14981	51686	73° 09.0'
2000	14900	1540	49510	5° 54.1'	14979	51726	73° 10.0'
2001	14901	1569	49548	6° 00.6'	14983	51764	73° 10.5'
2002	14901	1599	49593	6° 07.5'	14987	51808	73° 11.1'
2003	14896	1632	49644	6° 15.1'	14985	51856	73° 12.2'
2004	14894	1660	49677	6° 21.6'	14986	51888	73° 12.8'
2005	14891	1689	49714	6° 28.3'	14986	51924	73° 13.5'
2006	14889	1718	49740	6° 34.9'	14988	51949	73° 13.9'

## 18.3 Disturbed Days

Year	X	Y	Z	D	H	F	I
1953	14959	879	48230	3° 21.8'	14985	50504	72° 44.4'
1954	14968	899	48264	3° 26.2'	14995	50540	72° 44.4'
1955	14967	924	48301	3° 32.0'	14995	50575	72° 45.2'
1956	14952	945	48344	3° 37.0'	14982	50612	72° 46.9'
1957	14959	961	48376	3° 40.5'	14990	50645	72° 47.0'
1958	14958	974	48407	3° 43.5'	14990	50675	72° 47.7'
1959	14963	986	48439	3° 46.2'	14995	50707	72° 47.9'
1960	14960	1004	48468	3° 50.4'	14994	50734	72° 48.6'
1961	14992	1005	48498	3° 50.1'	15026	50772	72° 47.2'
1962	15013	1013	48522	3° 51.6'	15047	50802	72° 46.3'
1963	15014	1025	48543	3° 54.3'	15049	50822	72° 46.6'
1964	15035	1027	48564	3° 54.5'	15070	50848	72° 45.6'
1965	15044	1030	48580	3° 55.0'	15079	50866	72° 45.3'
1966	15046	1033	48602	3° 55.7'	15081	50888	72° 45.6'
1967	15042	1034	48630	3° 55.9'	15077	50914	72° 46.5'
1968	15061	1028	48659	3° 54.3'	15096	50947	72° 45.8'
1969	15074	1019	48684	3° 52.0'	15108	50974	72° 45.5'
1970	15089	1011	48721	3° 50.0'	15123	51014	72° 45.4'
1971	15111	1006	48746	3° 48.5'	15144	51044	72° 44.5'
1972	15122	1007	48780	3° 48.6'	15155	51080	72° 44.4'
1973	15133	1013	48816	3° 49.8'	15167	51118	72° 44.4'
1974	15147	1019	48857	3° 50.9'	15181	51161	72° 44.3'
1975	15157	1027	48892	3° 52.6'	15192	51198	72° 44.3'
1976	15166	1042	48931	3° 55.8'	15202	51238	72° 44.5'
1977	15169	1061	48962	4° 00.1'	15206	51269	72° 44.8'
1978	15158	1086	49006	4° 05.9'	15197	51308	72° 46.3'
1979	15158	1103	49031	4° 09.7'	15198	51332	72° 46.7'
1980	15153	1120	49046	4° 13.6'	15194	51346	72° 47.2'
1981	15133	1146	49073	4° 19.8'	15176	51366	72° 48.9'
1982	15106	1166	49089	4° 24.8'	15151	51374	72° 50.9'
1983	15099	1184	49099	4° 29.0'	15145	51382	72° 51.4'
1984	15078	1203	49108	4° 33.7'	15126	51385	72° 52.8'
1985	15061	1219	49124	4° 37.6'	15110	51395	72° 54.1'
1986	15037	1237	49141	4° 42.2'	15088	51405	72° 55.9'
1987	15027	1250	49161	4° 45.3'	15079	51422	72° 56.9'
1988	15001	1268	49186	4° 49.9'	15054	51438	72° 58.9'
1989	14968	1287	49212	4° 54.9'	15023	51454	73° 01.4'
1990	14964	1296	49232	4° 57.0'	15020	51472	73° 02.0'
1991	14942	1313	49257	5° 01.3'	15000	51490	73° 03.8'
1992	14943	1324	49264	5° 03.8'	15002	51497	73° 03.8'
1993	14937	1348	49277	5° 09.4'	14998	51509	73° 04.3'
1994	14924	1373	49300	5° 15.4'	14987	51528	73° 05.5'
1995	14924	1398	49328	5° 21.1'	14989	51555	73° 05.9'
1996	14923	1425	49350	5° 27.3'	14991	51577	73° 06.2'
1997	14909	1457	49388	5° 34.9'	14980	51610	73° 07.6'
1998	14893	1489	49431	5° 42.6'	14967	51647	73° 09.3'
1999	14891	1517	49468	5° 49.0'	14968	51683	73° 09.9'
2000	14878	1547	49514	5° 56.2'	14958	51724	73° 11.4'
2001	14880	1576	49554	6° 02.8'	14963	51764	73° 11.9'
2002	14886	1604	49594	6° 09.0'	14972	51805	73° 12.1'
2003	14866	1643	49641	6° 18.4'	14957	51845	73° 14.0'
2004	14875	1669	49675	6° 24.1'	14968	51881	73° 13.9'
2005	14879	1696	49711	6° 30.2'	14975	51918	73° 14.1'
2006	14878	1722	49738	6° 36.1'	14977	51944	73° 14.5'

## 19 Earth's Magnetic Field Maps of Finland 2007.0

The isolines of total field (F) and horizontal field (H) are given in nanoteslas (nT), declination (D, positive eastwards) and inclination (I, positive downwards) in degrees of arc (see also [www.geo.fmi.fi/MAGN/magncharts.html](http://www.geo.fmi.fi/MAGN/magncharts.html))

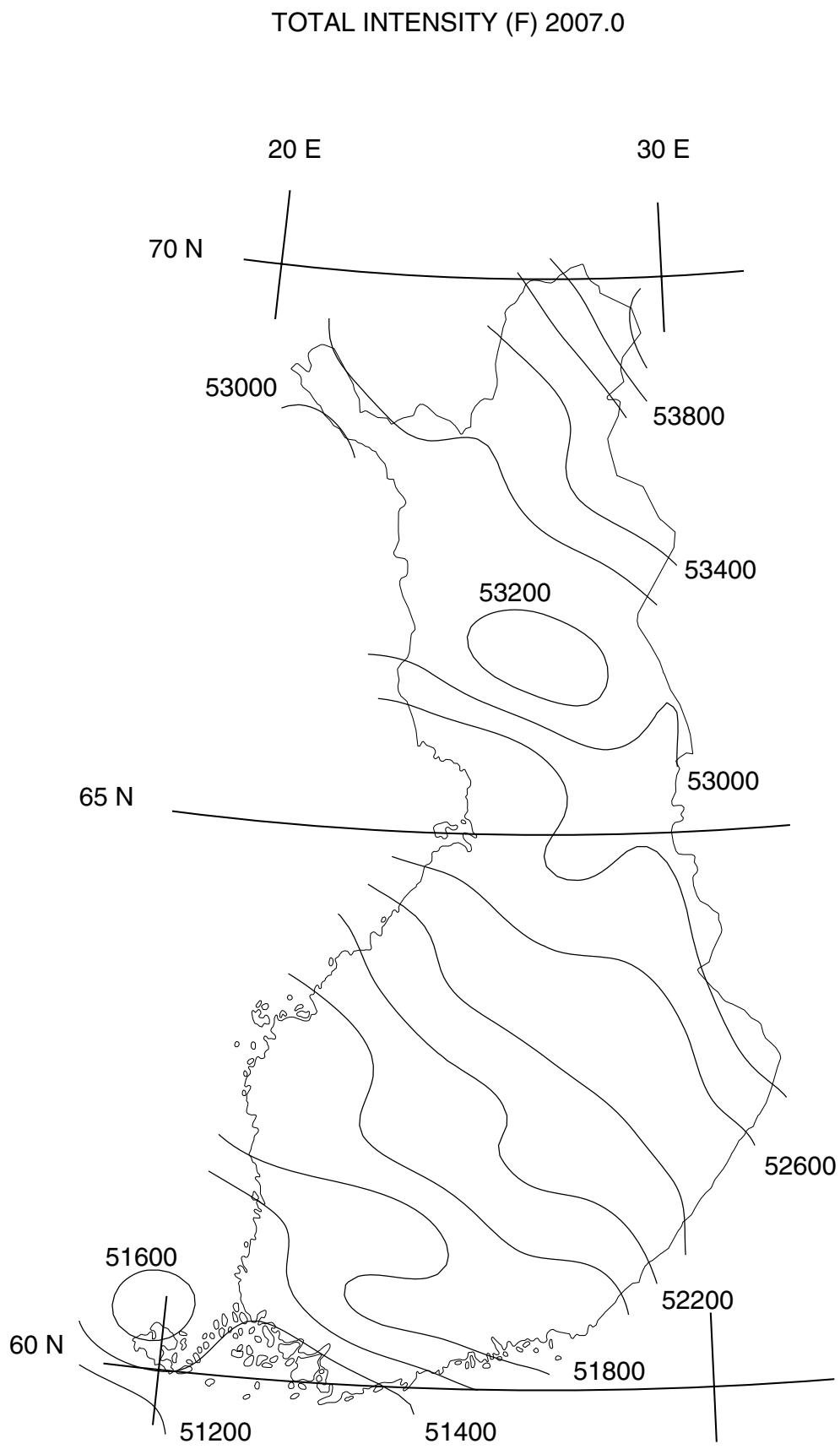


Figure 16: Total intensity F 2007.0 in nT

## HORIZONTAL INTENSITY (H) 2007.0

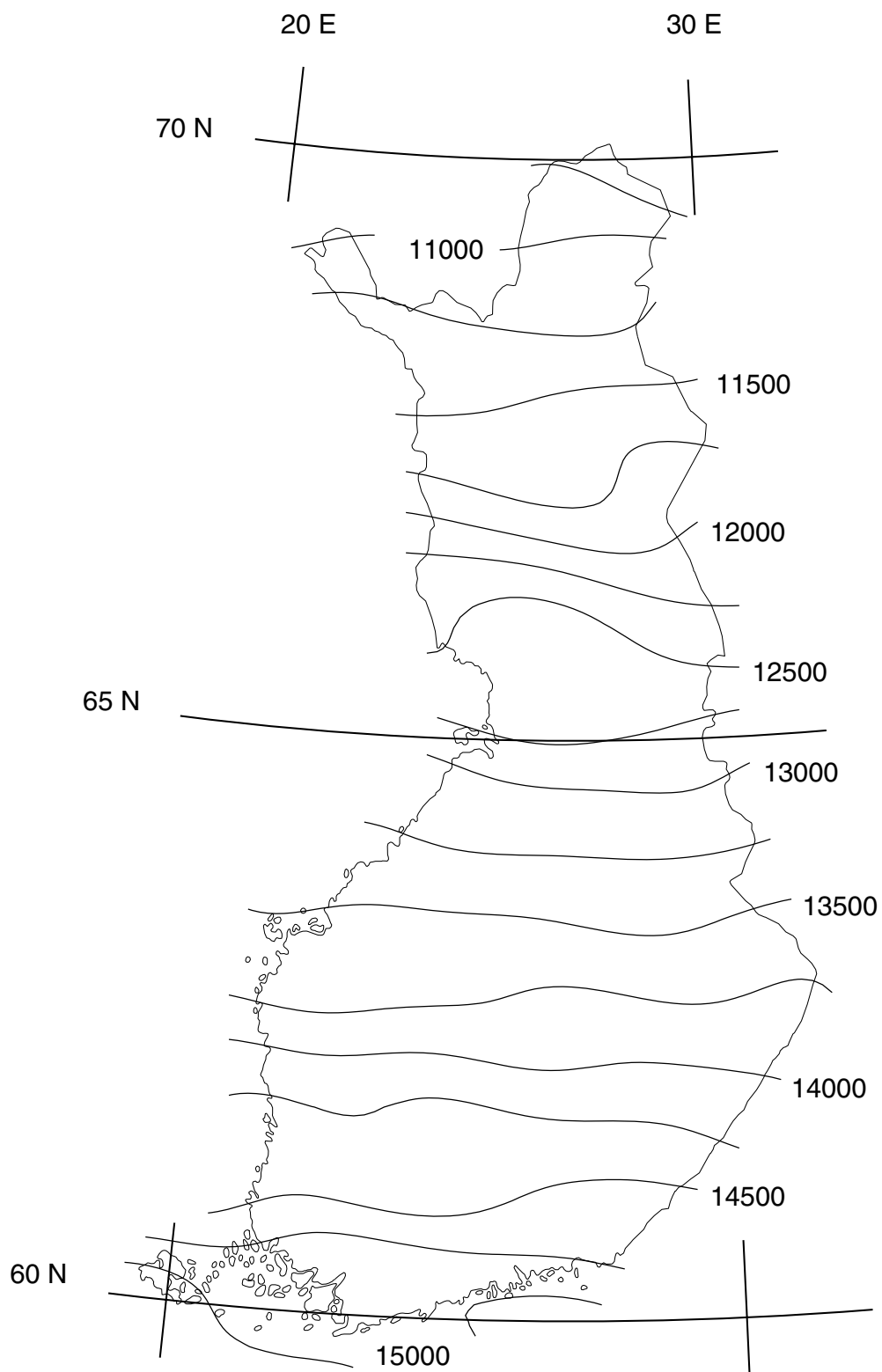


Figure 17: Horizontal intensity H 2007.0 in nT

## DECLINATION (D) 2007.0

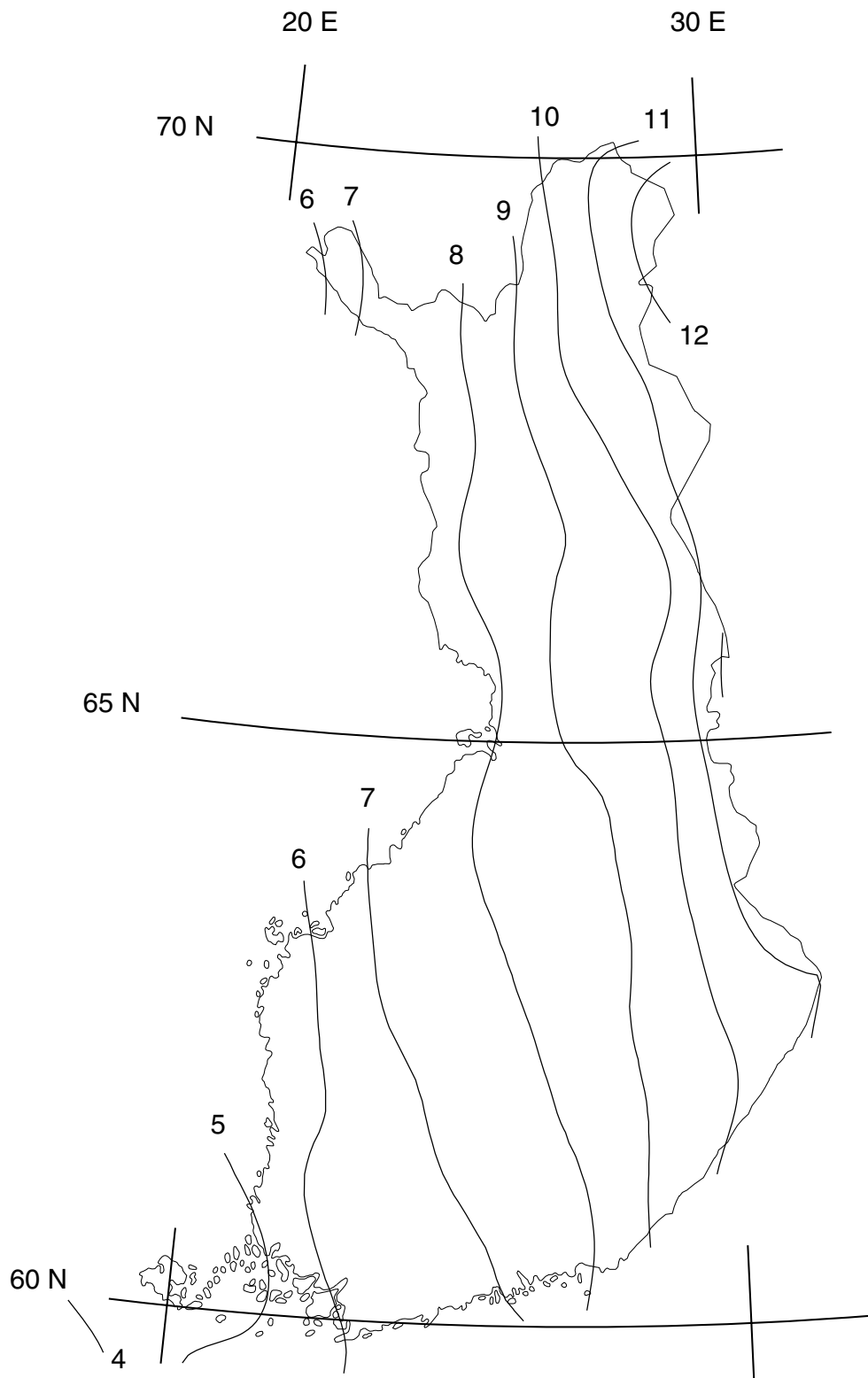


Figure 18: Declination D 2007.0 in degrees



## INCLINATION (I) 2007.0

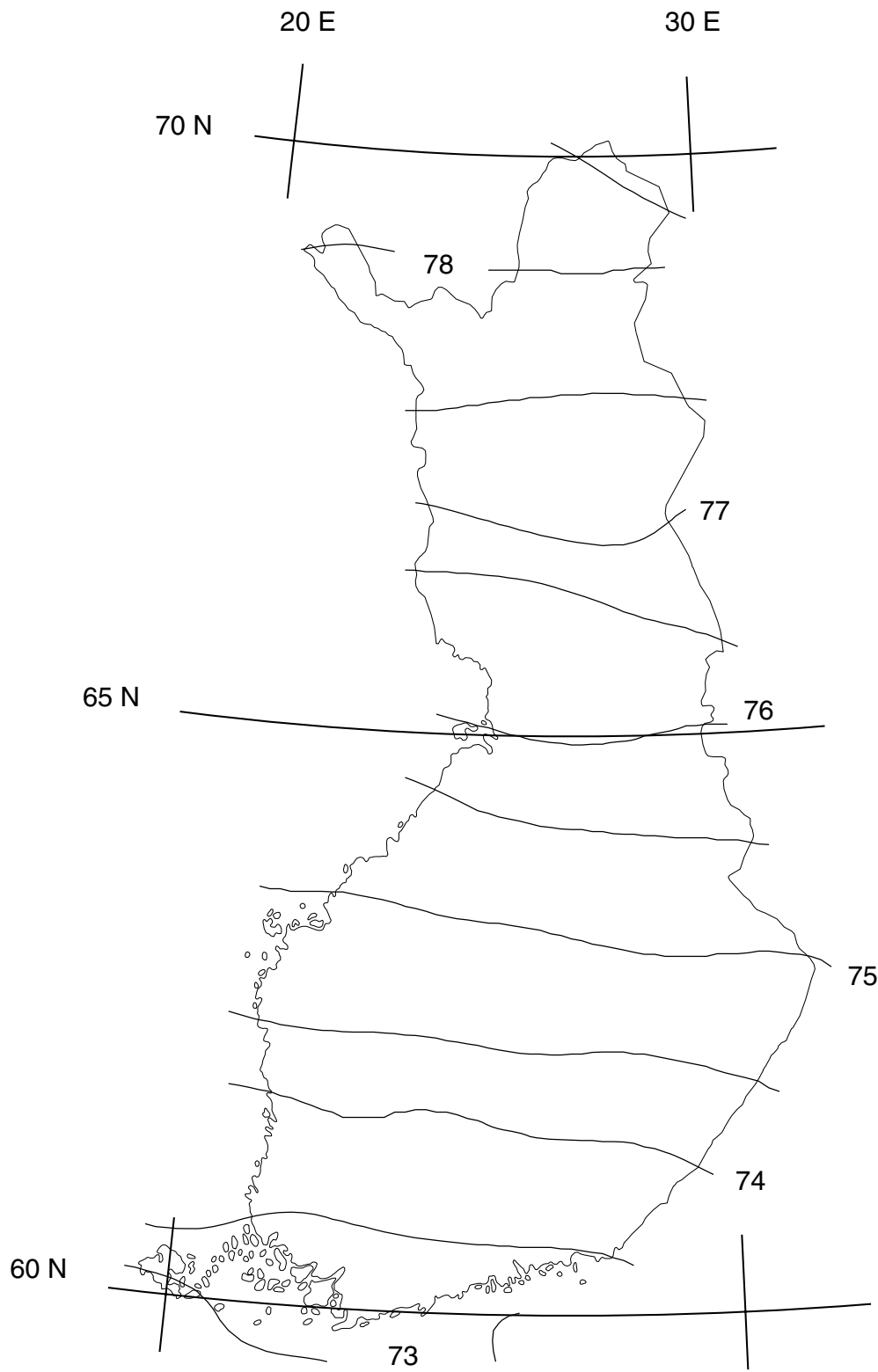


Figure 19: Inclination I 2007.0 in degrees

## Magneettisia mittauksia — Magnetic Results Nurmijärvi Geophysical Observatory

Magneettisia mittauksia — Magnetic Results 1991. Helsinki 1992. 37 pp.  
 Magneettisia mittauksia — Magnetic Results 1992. Helsinki 1993. 36 pp.  
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 Magneettisia mittauksia — Magnetic Results 1997. Helsinki 1998. 47 pp.  
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 Magneettisia mittauksia — Magnetic Results 1999. Helsinki 2000. 47 pp.  
 Magneettisia mittauksia — Magnetic Results 2000. Helsinki 2002. 46 pp.  
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 Magneettisia mittauksia — Magnetic Results 2002. Helsinki 2003. 47 pp.

The series Magnetic Results is ceased in 2006. New issues of the Nurmijärvi yearbooks will hereafter appear in the FMI series Reports.

## Reports

Magnetic Results 2003, Helsinki 2006, 47 p.  
 Magnetic Results 2004, Helsinki 2006, 47 p.  
 Magnetic Results 2005, Helsinki 2006, 50 p.  
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1. Savolainen, Anna Liisa et al., 1986. Radioaktiivisten aineiden kulkeutuminen Tshernobylin ydinvoimalaonnettomuuden aikana. Väliaikainen raportti. 39 s.
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  3. Ahti, Kari, 1986. Rakennussääpalvelukokeilu 1985-1986. Väliraportti Helsingin ympäristön talvikokeilusta 18.11.-13.3.1986. 26 s.
  4. Korhonen, Ossi, 1986. Pintatuulen vertailumittauksia lentoasemilla. 38 s.
- 1987:
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Ilmatieteen laitos  
Erik Palménin aukio 1, Helsinki  
tel. (09) 19 291  
[www.fmi.fi](http://www.fmi.fi)

ISBN 978-951-695-638-2  
ISSN 0782-6079  
Yliopistopaino  
Helsinki

